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THE JOURNAL OF THE AMERICAN MEDICAL PROFESSION

A Monthly Record of Medicine, Surgery and the Collateral Sciences

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The Prevention of Cancer*

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MR. CHAIRMAN:

It is an honor and a privilege which I much appreciate to be invited to Rochester to give the summary of the general program on this cancer symposium. I wish to call attention to the healthy attitude on the part of the local medical profession whose program committee has chosen such a timely subject as "Early Symptoms of Cancer." Obviously you are willing to look truth squarely in the eyes; admit the frequent overlooking of the earliest signs; and resolve to make a labored study of those vague but highly important symptoms the recognition of which leads to a high cure percentage.

The laity is responsible for disregarding symptoms that should bring them earlier to the physician. We must admit, however, that the public has been surprisingly alert and receptive to the teachings on the subject of cancer through the lay press and the talks by radio. Patients now in greater numbers come to us presenting vague and ill-defined symptoms which are confusing and which test our diagnostic acumen. We must familiarize ourselves with the known early signs because our greatest opportunity lies exactly here in this field. The preceding speakers have ably developed their subjects from the viewpoint of their own specialities, and presented this information to us in a way that is impressive and easily comprehensible. I feel it would add more were I to leave "Early Signs" as presented, and attempt to round out the symposium by going back a step further and touching on the subject of Cancer Prevention.

Every one has a right to his own opinion as to the *cause* of cancer. The three well-known theories are:

1. The Cohnheim theory of cell inclusions or embryonal rests which later in life commence growth owing to some unknown factor.
2. The theory of a universal cancer parasite.
3. The Virchow theory of a continued irritation setting up a mutation in the local cells which eventuate in a lawless growth.

The theory of a universal cancer parasite is untenable to me because cancer is not a single disease; it is a great group of neoplastic diseases each of which has its own characteristics, peculiarities, and life history. It is difficult to conceive of the identical parasite producing an osteogenic sarcoma in one patient, and an adenocarcinoma of the stomach in another. The Cohnheim theory of cancer beginning from an embryonal rest does

* This contribution is a part of the Clinical Conference which was held at the Sixth Annual Meeting of the New York State Committee of the American Society for the Control of Cancer in Rochester in December, 1931. The entire proceedings of the Clinical Conference will be published, beginning in July, in the Department of Cancer.

explain, at least partially, the presence of cancer in a definite group of cases, such as melanoma and the congenital lesions. This theory does not, however, explain the beginning of the *growth* of the lesion. What is the factor which will cause a congenital lesion which has been present for 40 years to commence to grow? I prefer to think in the majority of instances it is irritation of one type or other. The Virchow theory of chronic irritation can be applied to the Cohnheim theory. We find ourselves today with an abundance of clinical and laboratory support for cancer as being caused by chronic irritation. I have previously stated that[1] "The factor of which we know most is that of chronic irritation. This may be chemical, thermal, bacterial, or mechanical. Each individual organ such as the stomach, breast, uterus, rectum, antrum, bone, œsophagus, tongue, cheek, lip, penis, bladder, etc., possesses factors *peculiar* to that individual organ. These irritation factors are not common to the other organs." If you will admit this, it should be an easy step to the prevention of certain common cancers.

1. *Intra-oral Cancer*

Ewing states[2] "Among the preventable cancers the most obvious is the intra-oral group. It has long been known that cancers of the lip, mouth, tongue and tonsil are due to bad teeth, tobacco and syphilis, and the importance is, I think, in the order named. Experience in a large clinic for these diseases reveals, on the average, an astonishing degree of irritation due to these factors. Broken, decayed and projecting teeth continually tear the adjacent mucosa. Sound teeth slightly out of alignment, but with sharp edges, are often responsible. Pyorrhea often adds an effective irritant, especially in cancer of the floor of the mouth. Elaborate plates containing various metallic alloys are particularly irritating to some mouths." We have all seen examples of a badly fitting dental plate pinching or rubbing one area at which site a cancer developed in later years. Cancer of the larynx has been stated by one authority to occur especially in "hawkers"—those who are continually "clearing" their throats. Certainly the constant inhaling of irritating smoke also must have a deleterious effect on the delicate mucous membrane of the larynx. A study of cancer of the antrum shows that the antrum involved has commonly been subjected to chronic infections. In such cases the obvious step in cancer prevention is to establish proper antrum drainage.

2. *Stomach and Oesophagus*

If one carefully analyzes habits of eating one will be surprised to note the prevalence of certain vicious habits in this common disease of cancer of the stomach. Many drink their coffee so hot that it is impossible for them to hold it in the mouth as it would be burned; but as the stomach does not possess the same type of nerves, it complacently holds the hot liquid and silently receives the many thermal insults. The destruction and inflammation set up by excessively hot and cold food is probably responsible for certain ulcers and cancers. An analysis of the habits of patients suffering from cancer of the stomach reveals the surprisingly large percentage who do not take the time or trouble to properly masticate their food; who "eat and run," not giving the stomach an opportunity to get well started toward its digestive function before excessive strains on other parts of the body are required. Aside from bad dietary habits, cancer of the stomach especially occurs in subjects with an advanced pyorrhea. In 12 gastric cancers which were so early as to be unrecognized clinically, Verse of Leipzig found at autopsy that they were adenocarcinomas which had slight erosion and definite infection while the remainder of the stomach was the seat of a chronic catarrhal inflammation. The bolting of improperly masticated food certainly causes damage to the mucous membrane of the oesophagus, especially at those zones where it is anatomically narrowed.

3. *Large Intestine and Rectum*

In cases of chronic constipation the large intestine and the rectum are not properly emptied. The food residue becomes impacted, hard and acid. This rough material lies in the rectal pouch and in the sigmoid for an abnormally long time; and "the irritation produced by this mass of feces pressing against, sliding over, and microscopically lacerating the delicate mucous membrane in all probability is the chief factor in producing carcinoma in this region."[1] It is conceivable that the tremendous bacterial flora of this region may be a contributing factor in the presence of the trauma factors. Prevention lies in properly regulating the diet to avoid the intestinal stagnation.

4. *Gall-Bladder*

Cancer of the gall-bladder occurs nearly universally in the presence of two contributing factors—namely, gallstones and chronic infection. The disease can be prevented by the removal of the gall-bladder at the proper time.

5. *Uterus*

Cancer of the cervix uteri occurs chiefly in women who have borne children and in whom the laceration of the cervix has been neglected. The torn cervix becomes the seat of erosions and chronic cervicitis. The smegma and colon bacilli are mechanically deposited at the sites of the erosions, adding to the inflammation. Putrefaction of the cervical and vaginal secretions takes place. We are therefore dealing in this instance with mechanical, bacterial and chemical factors. Prevention lies in cleanliness; and in the exact and careful repair of cervical tears.

6. *Bone*

It is difficult to prove that bone injury is responsible for the growth of an osteogenic sarcoma or a giant cell sarcoma; but some authorities with a large experience in bone tumors state that an injury has preceded the growth of the tumor in as high as 50 to 60 per cent of the cases. This, however, does not mean that 50 per cent or anything like that number of bone injuries ever develop a tumor. In certain types such as the Ewing's endothelial myeloma and the plasma cell myeloma, the microscopic picture suggests that a chronic infection may be the etiological factor. In the Ewing's tumor the clinical course of pyrexia, leucocytosis, and the frequent presence of chronic naso-pharyngeal infection all suggest a chronic infection basis.

7. *Penis*

Circumcision is a most striking example of what can be accomplished in cancer prevention. Cancer of the penis is almost unknown in the Hebrew race due to the fact that circumcision is universally practiced. Penile cancer occurs in those with long foreskins under which the secretions are retained near the corona. Filth collects; and the elements of bacterial infection, erosion, putrefaction and chemical irritation all play their respective rôles in contributing to the growth of a neoplasm.

8. *Skin Cancer*

No cancer group better illustrates the etiological factors of chronic irritation than the cancers of the skin. Here we have common and varied factors which contribute. Everyone is familiar with the old and classic example of chimney-sweep's cancer. The lack of cleanliness and the irritation of the soot eventuate in a new growth. More and more we are seeing cases of X-ray and radium cancer which are examples of the late

development of irradiation dermatitis eventuating in an epithelioma. It has become a problem of prime importance in industry to know how to give protection to the hands of those workers who are commonly smeared with oil, grease, paint, tar, etc. These workers frequently develop squamous epitheliomas of the hands. It is along this particular line that the laboratory workers are producing cancer in laboratory animals by daily applying a drop of tar to the skin of the animal. Old burns that never healed properly or were never skin-grafted occasionally develop squamous cancer. In this instance the infection contributes to the repair and destruction processes, one following the other until after many years the neoplasm is fully developed. We also see instances of epitheliomas developing at exactly the site of a varicose ulcer prêsent for many years. The face and hands of the man exposed to excesses of actinic rays, heat and cold, such as the farmer, illustrate another well-known instance of a common type of skin cancer. Rarely one sees a patient who has taken large doses of arsenic or Fowler's solution over quite a period, and who develops a generalized keratosis eventuating in multiple epitheliomas. There are three such examples in my clinic.

The congenital skin lesions which eventuate in cancer seem chiefly to be the black hairy moles, and the melanomas. Melanomas develop into malignant melanomas more frequently if they occur anatomically where they receive a maximum of minor injuries such as on the hands, feet and face. If an injury causes laceration and infection of a melanoma, metamorphosis from a benign into a malignant tumor is quite apt to take place. Cancer prevention can be carried out by a cautious, moderately wide excision, being careful not to actually touch the lesion with the forceps, and being also sure to go to a depth that will give a good margin of safety.

9. *Breast*

Stagnation of breast secretions with the resultant chemical irritation seems to be the most obvious factor playing a major rôle in the cause of mammary carcinoma. In a clinical study made on 200 consecutive cases of mammary cancer I found only 8.5 per cent to have a perfectly normal breast history. There were many instances of an inflamed or cracked nipple being the cause of a lack of nursing and drainage of one particular breast wihch later developed a carcinoma. In some cases an incision had been made into the breast for an abscess; the ducts were cut across and a certain number developed carcinoma near or at this site. Pregnancy is responsible for the development of a large amount of new ducts and their extensions; also for the multiplication of the glandular secretory cells. In cases where the mother does not nurse the child or in cases of miscarriage, this large amount of new tissue as well as the milk itself becomes locked up within the mammary system and is not drained out. The cells desquamate, break up and lie within the lumen as a source of inflammation. In many cases we have been able, by pumping the breast, to obtain stagnant milk. A chemical analysis of the secretions has revealed in a few cases not only lactic acid but in two instances traces of butyric acid, both of which acids are definite sources of severe irritation. Miscarriage is a physiological insult to the breast. This study of 200 cases[3] reveals a very large number of miscarriages. Several instances of developmental inversion of a nipple subsequently produced carcinoma.

Bagg made significant experimental and confirmatory studies on a series of laboratory animals with a known tumor incidence of 7 per cent. He ligated the terminal ducts immediately behind the nipples on one side of the animal. The litters could only be nursed on the other side. The side of the ligated ducts developed a 100 per cent tumor incidence proving that secretory stagnation is a most important factor in the development of mammary cancer. These clinical laboratory studies of breast stagnation suggest to the obstetrician that he ponder twice before advising the mother not to nurse the child unless there is some definite contraindication.

The above examples suggesting causes for the development of the common cancers also clearly imply the *methods for their prevention*. The latter will unquestionably be the next major move of importance in cancer study; and there is no place where the study can be more ably begun and carried through than in the hands of the general practitioner.

70 E. 77th Street.

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Non-Diabetic Glycosuria in Childhood

Prof. G. Fanconi, (Jahrb. f. Kinderh., 1931, cxxxiii., 257.) of Zurich, in reviewing this subject, begins by saying that he diagnoses primary or familial renal glycosuria if he finds glycosuria with a normal fasting blood-sugar and normal blood-sugar curve, if the usual accompanying symptoms of true diabetes are absent, and if there is harmless glycosuria in other members of the family. As an example of secondary, or nephrotic, renal glycosuria he mentions a case where, following a chronic *Bacillus coli* infection, an infant developed glycosuria with a low level of blood-sugar—as low as 56 mg. per cent. on occasion. His second big group of cases of glycosuria in childhood comprises those associated with diseases of the nervous system. The presence of sugar in the urine in such conditions as tuberculous meningitis and cerebral tumor has long been recognised. Glycosuria was reported by Feer in one of the earliest accounts of pink disease, and in Fanconi's series of 16 children with this disorder the fasting blood-sugar was frequently higher than the normal average, and the response to dextrose often resembled that seen in genuine diabetes. It is also stated that in chorea glycosuria is not uncommon. A group of children with a tendency to run a temperature for no apparent reason ("constitutional hyperthermic children") is also included in this "nervous" group, and here also there is a tendency to hyperglycaemia and glycosuria after the administration of dextrose. Third in Fanconi's classification come endocrine disorders other than Included in this group are also those children with diseases those affecting the islets of the pancreas. Here he describes the hypoglycaemia of dystrophia-adiposo-genitalis in contrast to the hyperglycaemia of patients with precocious puberty. of the thyroid gland. Another interesting group are those with so-called febrile glycosuria, which is probably closely associated with some nervous disturbance. In infants suffering from some forms of toxaemia sugar is often to be found in the urine, according to the Berlin school, and in the clinical syndrome known as alimentary intoxication the fasting blood-sugar is said to be above the average, while in atrophy and dystrophy of infants—using again the German classification—a low blood-sugar is the rule. Prof. Fanconi discusses some of the very difficult points in association with these disturbances of sugar metabolism in infants; and in another paper Dr. H. Schönfeld records the level of the blood-sugar in normal infants after various periods of starvation. After fasting intervals of 12 to 16 hours the blood-sugar falls considerably, he finds, and there is a very low curve after giving dextrose. Evidence is adduced that this "hunger hypoglycaemia" is not due to any increase in insulin activity. Fanconi's patients were all suffering from various disorders of the alimentary system, and hence his results are not directly comparable with those obtained with normal infants. He describes, in contrast to these, certain cases of "hunger diabetes," where children on diets especially constructed to be poor in carbohydrate (in the treatment of epilepsy) exhibited glycosuria and raised blood-sugar levels closely resembling the biochemical picture found in true diabetes. These cases, taken with several clinical examples of glycosuria appearing at the height of an attack of acetonaemic vomiting, raise many difficult points, and there has been much controversy, especially in Germany, about whether insulin should be given in severe attacks of acetonaemia. The finding of raised blood-sugar in the cases described in Fanconi's paper casts doubt on the action of glucose in this condition.—*The Lancet*, Dec. 26, 1931.

Concerning Digitalis

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OUR knowledge of the physiological action and therapeutic uses of digitalis is not as full as might be expected in view of the long period of time during which this drug has been known and extensively studied. While there is a certain amount of established knowledge, opinions occupy the field to a considerable extent.

It is generally accepted that digitalis modifies the physiology of the circulatory apparatus in two ways, through stimulation of its controlling vagus inhibitory mechanism and by direct action on its musculature: through vagal stimulation depressing all the myocardial functions, viz., rhythmical stimulus production, excitability, conductivity, contractility and tonicity; and by direct action increasing myocardial excitability and depressing myocardial conductivity.

It is also generally accepted that digitalis has a specific therapeutic action in the heart failure of auricular fibrillation and in the edema of heart failure.

Among the disputed questions are the following:

Does digitalis regularly slow the rate of heart beat? There is no question but that it slows the ventricular rate in auricular fibrillation and flutter by producing a partial heart block, which screens out some of the too numerous impulses to contract which come to the ventricles from the arrhythmic auricles, thereby permitting the ventricles to resume an approximately normal rhythm. The question has to do with the slowing of hearts with a normal rhythm. That it regularly slows such hearts seems to be widely believed. Such slowing might be expected to result from vagal stimulation, the effect of which naturally would be to depress stimulus production at the sinus node. But it has been found that digitalis rarely produces this result in a marked degree unless large doses are given. Cohen says: "Digitalis slows the sinus rhythm only in the group of hypodynamic hearts, and to produce slowing is not a primary function of digitalis." Pratt says: "Digitalis rarely slows the rate of normally beating hearts until toxic symptoms have been produced." Here the explanation suggests itself that when moderate doses are given the natural compensatory mechanisms of the circulatory apparatus may oppose successfully the depressing vagal influence. Mackenzie says that "digitalis has little or no effect on hearts with a normal rhythm."

Does digitalis directly increase myocardial contractility and tonicity? The affirmative position on this question is widely held, and on this basis would seem to rest the widespread belief that digitalis is therapeutically indicated in all conditions of circulatory failure. But Thomas Lewis says: "To the heart digitalis is not tonic but powerfully hypnotic"; and Henri Vaquez says: "Physiologically speaking, digitalis is not a heart tonic, as it has been called"; and James Mackenzie says, in substance, that the beneficial effects which result from digitalis are not due to any other causes than the slowing of the ventricles which it produces in auricular fibrillation; and Wenckebach says, as quoted by G. C. Robinson: "there is no evidence that digitalis acts on the obscure property, tone of the muscle"; and Hale White says that digitalis increases contractility in frogs, but not in mammals; and Cohen says, "If digitalis increases the ability of the ventricle to pump blood it must do so by means of a change which is more subtle than can be distinguished by our methods." The suggestion has been made that digitalis by relaxing the heart favors fuller filling of the ventricles and of the coronary arteries, thereby bringing about improved nutrition of the heart muscles, and thus indirectly increasing contractility and tonicity.

The effect of digitalis on the blood vessels has usually been described in terms of blood pressure. It has been believed in the past that digitalis raises the blood pressure. At the present time the trend of opinion seems to be the other way. Mackenzie says that he has rarely seen the blood pressure raised by digitalis, and has often seen it lowered. The writer has suggested that the regular effect of digitalis should be to lower the blood pressure because of its relaxing effect on the arterial as well as cardiac musculature. If this relaxing effect could be correlated with the theory (not yet accepted by the general scientific world as proved) which predicates vascular peristalsis as an intrinsic motive factor of the circulation, such correlation might help to explain how digitalis relieves the edema of heart failure and particularly the edema occurring in cases with a regular cardiac rhythm.

There is not general agreement as to the dose of digitalis. It is widely believed at the present time that the drug should always be given to the verge of toxicity. That this should be the dosage in auricular fibrillation and flutter, in order to bring about the partial heart block therapeutically desired, seems not to admit of question. But there are some who believe that indications may exist in certain conditions for the use of digitalis in smaller doses, doses which do not aim at producing partial heart block. Query: can it be that digitalis in the smaller doses may produce beneficial effects by relieving cardio-vascular spasticity?

Concerning the administration of digitalis, when given for the purpose of full digitalization, opinions differ. Some advocate giving within a very short period of time the entire amount of the drug estimated to be needed. Others prefer to approach full digitalization more slowly.

There is also difference of opinion concerning the estimation of the dose. It has been maintained that the full digitalization dose can be calculated from the body weight. On the other hand, attention has been called to the possibility of pathological conditions existing which could so modify the action of the drug as to render dosage standardization impossible.

It would seem that digitalis therapy at the present time is to a considerable extent a matter of opinion. More knowledge is needed. Particularly helpful would be enlightenment respecting the action of digitalis on the blood vessels.

1218 Pacific Street.

Menopausal Bleeding

1. In abnormal bleeding at or near the menopause the physician should not be content with anything short of a positive diagnosis as to its cause.
2. Biopsy of cervical tissue or examination of material removed by the curet afford in certain cases a sure means of diagnosis.
3. *X*-ray treatment should never be employed until carcinoma has been excluded.
4. Physicians and nurses should constantly seek to dispel the false views held by many women concerning menopausal bleeding.—*King, N. Y. State J. M.*, April , 1932.

A Consideration of Cæsarean Section*

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THE past few years have seen a considerable modification of opinion pertaining to the indications for cæsarean section. With the perfection of technique in a comparatively simple operation capable of saving time and labor, it was natural that there should arise among surgeons a tendency to magnify its advantages and at the same time to minimize its disadvantages. The most striking point to the inexperienced operator who has one or two successful sections to his credit is its relative ease of accomplishment compared to the longer period of waiting and the attendant fatigue of a difficult labor.

Under such circumstances or conditions it is but natural for the operation to be done more frequently and for an ever increasing list of so-called indications. Especially is this so if there is an absence of strong and well-informed guidance from experienced obstetricians. The operation is by no means the simple and safe procedure it is popularly supposed to be. The mortality of the average operator and the average mortality of all operators are much truer indices of the value of a given procedure than are the brilliant results of a single skilful surgeon.

There are many reasons for the high mortality rate following this operation. A wrong conception of the process of parturition is the first and probably the most important reason. The obstetrical specialist is not exactly a popular figure in the field of medicine. His is not the popularity of the surgeon, since almost every general practitioner is an obstetrician or at least derives one quarter or one fifth of his income from his maternity work. The surgeon is more often the consultant of the general practitioner and is more frequently called to operate. The general surgeon has the required technique but is frequently less trained in the refinements of obstetrical diagnosis than the man who has called him.

N. Davis in the *Texas State Medical Journal* (April, 1929) reports a survey in Houston from 1923-1926 of 107 cæsarean sections in two large hospitals. There the patients came from the private practice of the general practitioners, general surgeons and obstetricians of the city. The mortality in these operations was 14.0 per cent. Fifty-one of the 107 patients were operated upon by a group of recognized surgeons and physicians in general practice with a mortality of about 33 per cent. Another small group, composed of physicians specializing in obstetrics and of surgeons closely associated with them, performed 56 consecutive cæsarean sections with a mortality of ⅛ per cent.

The mortality of the cæsarean operation is due very largely to the time at which it is performed. Even as an elective procedure and when every circumstance is favorable it has a minimum mortality of at least 2 per cent. In the average hands—and these it must be remembered are the hands that do most of the surgery—it carries a mortality of from 8 to 10 per cent. The death rate increases approximately 1 per cent with each hour of labor and each vaginal examination following the rupture of the membranes (C. J. Miller, *Surg. Gyn. & Obst.*, June, 1929). It increases 10 per cent with each attempt at delivery and following an attempted craniotomy it reaches 50 per cent.

The reason for this mortality is due to its performance on ill grounded indications together with a disregard for the type of operation best suited for the individual case.

There are, categorically speaking, only two absolute indications for cæsarean section, pelvic deformity or disproportion between the passage and the passenger and obstructing tumors.

In the majority (80%) of cases contraction or deformity of the pelvis is the principal factor in rendering labor unduly difficult, but it must be remembered that it is no more difficult for an undersized child to pass through a contracted pelvis than for an over large child to pass through a normal pelvis.

The true conjugate diameter is probably our best guide in aiding us to determine if the pelvic contraction furnishes an actual indication or a relative one. It is universally agreed that whenever the true conjugate measures 5 to 7 cm. section at or near term is an elective method of delivery in all cases where the child is alive and in good condition and the mother's condition warrants the risk of an abdominal delivery. Where the child is dead craniotomy should be the operation of choice.

Cases of less marked pelvic contraction, where the true conjugate diameter is between 7.5 and 8.5 cm. in flat, and 7.5 and 9 cm. in generally contracted pelvis, afford an indication for an elective procedure. Satisfactory labors terminated by a not too difficult pelvic operation can and do occur in patients having these antero-posterior measurements but it is not by any means easy to estimate the course of such labors in advance and many children are lost and mothers seriously injured from attempting pelvic deliveries under such conditions. It must not be forgotten that the possible delivery through the pelvis is not the only factor to be considered. We must consider what effect such a delivery can have on the after life of the patient.

It is quite possible for two women with the same pelvic measurements and with children of approximately the same size to have totally different results. One may have a comparatively easy and spontaneous labor while the other may require a major operation to insure the safe delivery of a living child and the preservation of her own health. A thorough examination of the patient in the last weeks of her pregnancy and the giving of careful consideration to all factors in her case are of considerable aid in determining the best course to pursue. Muller's method of impressing the head into the pelvis, and the observing of over-riding above the symphysis are important factors. The parity of the patient and her age are other important considerations.

We must give due thought to the history of previous deliveries and remember that many children have been lost because the physician in charge of a second labor has assumed that he could succeed where his predecessor had failed. A patient with a border line pelvis who has lost one child as a result of a previous difficult operative delivery may be entitled to a cæsarean.

* Read before the Queensboro Surgical Society, at Forest Hills, November 16, 1931.

Contraction of the pelvic outlet must also receive consideration and Williams has shown that this is probably the most common form of contraction met with among white women in this country. It has been commonly stated that a transverse of 7 cm. or less is a positive indication for abdominal delivery but serious dystocia can occur in cases of only slight contraction and spontaneous delivery can occur in patients presenting an extreme degree of contraction. This is explained as follows. Shortening of the bisischial diameter is associated with a narrowing of the public arch (male type), and this narrowing permits only a smaller segment of the head to pass beneath it, and in these marked cases the only portion of the pelvic outlet that the head can enter is posterior to the bisischial diameter or through the posterior sagittal diameter. It then follows that a lengthening of the post-sagittal compensates for shortening of the bisischial. These combined lengths should be at least 15 cm.

The previous successful repair of serious pelvic lacerations may be considered as an indication for delivery by the abdominal route. Elderly primiparae with funnel pelves should be considered as cases for possible section.

Pelvic deformities, exostoses and old pelvic fractures which may in any way raise doubt as to the result of labor must be considered as cases for possible section. Other indications are tumors of the uterus and other pelvic organs that may so obstruct the pelvis as to render the passage of the presenting part impossible.

Dystocia following operation for the relief of uterine displacements, such as ventral fixation, may be an absolute indication.

In cases of severe toxemia without a definite pelvic contracture but having a long hard cervix and where delivery may be an imperative indication for mother or child or both, caesarean section may be judged to be the operation of choice. The decision in such cases may present a difficult problem but under ideal conditions the results have seemed to make it a justifiable choice. Most obstetricians agree that the complete variety of placenta previa should be sectioned as soon as possible while the lateral or marginal types should be treated by more conservative methods.

Tumors of the ovary or uterus that definitely obstruct the birth canal form an absolute indication. Most pelvic tumors will rise out of the pelvis before delivery or will permit the passage of the presenting part at the time of delivery. In those cases where obstructing myomata make an abdominal section indicated, the operation should be performed just before or at the beginning of labor. At the time of the delivery the surgeon must decide whether myomectomy or hysterectomy is indicated. He must also exercise his judgment, after myomectomy is decided upon, regarding the advisability of removing all of the tumor masses or those that appear most easily enucleated. It may be advisable to wait for some future time after involution has occurred. We know that myomata will decrease in size with the involution of the uterus. Infection demands the performance of hysterectomy following the caesarean section.

Pregnancy complicating carcinoma of the cervix is rare. It is contended that if the cancer is operable it should be so treated, while if not operable, the end of the pregnancy should be awaited or at least one should wait until viability of the child is established and then a section performed.

Whenever any condition exists in the uterus which in the opinion of the attendant renders cæsarean section a safer method of delivery for that patient than a pelvic delivery, it should be done. Each operator must be guided by his own experience and do what he believes is best for the patient.

Abdominal delivery exposes the mother to certain dangers which may be classified either as Immediate or Late.

The Immediate Dangers are—

1. Hemorrhage. While this was, in the early days of the operation, the greatest danger, it now has been so minimized by proper suturing and the use of pituitary and ergot has to be but rarely a troublesome factor.

2. Trauma of operation. Shock following the operation has been greatly decreased by the conservation of blood and by the improved technic and consequently less handling of the abdominal contents. The cardiac cases are more likely to exhibit evidences of shock than any other group.

3. Sepsis. This is probably the most important cause of morbidity and mortality and is the most serious complication of the operation.

The Late Dangers are—

1. Invalidism. A number of women after a major operation have poor health for a variable amount of time.

2. Sterility. Uterine infection and suppuration may result in destruction of the endometrium or in pelvic adhesions and so produce sterility.

3. Rupture of the Uterus. This is a real danger and must be given consideration. The sutures in the uterine wound serve two purposes—hemostasis and coaptation. Sutures may be tied too tightly and so cause pressure necrosis and infection of the muscle fibers. The contraction and relaxation of the uterine fundus during the puerperium may cause the edges of the uterine wound to grind against each other and so disturb the sutures. Poor union could result from this. Recent studies of the uterine scar, by Greenhill and others, have shown that this failure to heal properly is most noticeable where the scar is located in the body of the uterus and least when it is in the cervical portion. Thin scars may readily result.

Concerning types of operation chosen to meet the various conditions each operator will have certain preferences. For elective sections and those performed within the six hour test period, I prefer the low classical operation. The skin incision is entirely below the umbilicus and about ten centimeters long. It has the decided advantages of simplicity and rapidity and is less interfered with by maternal deformities such as a pendulous abdomen, etc. The incision can always be extended if necessary. In cases where there is the slightest suspicion of infection, such as an extension over the six hour test period or repeated vaginal examinations, it seems that the cervical flap operation, known generally as the laparotracheotomy and developed by DeLee, is by far the safer procedure.

It is not the province of this paper to discuss the various types of low or cervical section except to mention them briefly. We have the extra-peritoneal section, also known as the Latzko operation, and the Kustner's operation, the transperitoneal section popularized by Hirst but originally known as the Oisander-Frank operation, and the sub-peritoneal or flap operation subsequently improved by Beck. The Porro operation is one of the oldest. It is cæsarean section followed by hysterectomy.

The cervical low flap operation is rapidly gaining favor throughout this country, if we may judge from the large number of cases reported in the literature. The better results obtained are probably due to the fact that the incision is made in the thin non-contractile lower segment rather than in the thick contractile portion of the uterus and because the uterine incision is completely covered over by the bladder, thus protecting the peritoneal cavity should infection occur during the puerperium.

Most types of cervical section have certain good points. Each operator must, as I have previously said, use his own preference and perform that type that he judges best for a particular case.

When we consider cæsarean section in any patient we must be impressed with certain obligations.

1. We should give careful consideration to pelvic measurements, especially in primiparae and others who give histories of previous difficult and disastrous labors.

2. We should look for tumor obstruction in all cases, so that if a section is definitely indicated or proves to be indicated after a trial of labor we can be prepared to perform the section before the condition of mother and child offers contraindications.

3. We should realize the importance of rectal examinations so that where a cæsarean is to be performed we can undertake the operation without the fear that infection has been previously introduced.

4. And last we should remember that unless we use the keenest selective judgment in choosing cases for cæsarean section, the maternal mortality will be higher than in the use of other accepted methods of delivery.

35-40 165th Street.

Discussion

DR. GEORGE J. J. LAWRENCE:—"I wish to congratulate Dr. Mencken on his excellent paper. He hasn't left much for me to discuss because he has covered the subject very thoroughly and very clearly. I feel we have all enjoyed the paper; I know I have anyhow.

"The frequency with which caesarean section is done has been stressed in the paper. Personally, I agree with him that there may be too many caesarean sections performed because I believe some are inclined to think it is an easy operation, which is true when everything goes all right, but it is also spectacular and the spectacular element is likely to enter into a man's consideration sometimes, and if he gets away with a spectacle it may add further to his caste. The fact that the operation is not a common every day surgical procedure and that it should be performed only by those who understand the obstetrical indications was very well brought out in the paper. The indications he has covered very thoroughly. I don't think I have anything to add as far as they are concerned.

"The matter of disproportion, pelvic deformities, the occurrence of obstructing tumors, the fact of previous difficulty, at least with perineotomies and vaginal repairs with very good results, are important things to take into consideration. A patient who has gone through, as he stated, a difficult delivery previously and who has gotten a very fine result from a repair, should not, in my opinion, also as Dr. Mencken also brought out, be put through that ordeal a second time and that is an indication we do not often hear about.

"The matter of previous ventral suspension as an indication sometimes is something that I have had brought to my attention, today particularly. A patient, a house case, was delivered in our hospital, delivery of a twin pregnancy being accomplished by an intern. We found later that she had had a ventral suspension done just one year ago. That patient had a delivery of two normal babies today.

"In regard to toxemias or eclampsia: eclampsia I treat by section, not by the expectant method and allowing the baby to die in the hope that the eclampsia will clear up on the death of the baby in utero. I think the question of sacrificing the life of the baby by that procedure is worthy of consideration, and consideration of the after life of the woman is also important from the standpoint of invalidism following operations of any type. I think the invalidism caused by a difficult high forceps or even medium forceps delivery with perineal injuries is more prevalent than invalidism caused by an abdominal section.

"As regards the type of operation used: of course, as Dr. Mencken said, that depends upon the individual case. The indications for a conservative operation or the extra-peritoneal operation must enter into all our considerations. Personally, I believe if the patient is infected, there is no advantage in doing an extra-peritoneal or a flap operation of any type; the patient is already infected and I cannot see any advantage in trying by a flap operation to overcome a condition which is already present. A conservative operation of the median type is usually my procedure in most cases.

"There is one point I should like to mention. It is a simple one and, I think, a very important one in the operation, and that is the mopping up of the abdomen and pelvis before the abdominal wound is closed. By that I mean the cleaning out of the blood-clots or free blood that may have accumulated in the abdominal cavity during the operation. That will save a great deal of immediate trouble in the way of absorption of blood-clots that may have become infected or may act as an absorbing irritant."

DR. JOSEPH WRANA:—"I enjoyed the paper immensely, particularly the résumé of indications.

"The question of ventral suspension as mentioned by Dr. Mencken is one that arouses interest as to just what the outcome will be in future pregnancies. I feel that we ought to clarify our minds as to what we mean by ventral suspension, whether we mean the ordinary uteropexies, such as the Gilliam or the Olshausen, or whether we are referring to the ventral fixation type where in a prolapse the fundus of the uterus is sutured directly to the fascia, and, in some instances, brought out and sutured to the external rectus sheath. That type of operation, to my mind, is an absolute indication for cæsarean section if the patient gets to term. There are operators who in doing a ventral fixation always sterilize the patient so as to prevent any fatalities, such as a ruptured uterus following such a procedure. In the ordinary type of uteropexies, the Gilliam, or the Montgomery, or the Alexander, there is a compensatory enlargement of the round ligaments so that a condition arising as Dr. Lawrence described is no reason for cæsarean section. That uterus will rise out of the pelvis and become to all intents and purposes a normal uterus for vaginal delivery.

"The thought occurred to me while Dr. Mencken was speaking of the extra-peritoneal type of cæsarean section in infected cases that many of our infections are brought about through manipulation of the uterine body itself. Of course, it is an entirely different proposition to speak of endometriosis in the same breath with infections, but Sampson very ably brought out the fact that endometrial implants can and do occur as a result of expressing endometrial tissue into and out of the fimbriated extremity of the tubes. So that infections can arise in that way, a peritonitis can result; we find that occurring very often in cases of ordinary salpingitis, pus tube, where the other tube is apparently normal and at some subsequent time a pus tube develops on the other side. I believe that that can occur through manipulation. I remember one case of a persistent abdominal sinus as a result of just such a condition. In that instance one tube was removed, and a tubo-ovarian abscess developed subsequently on the other side, giving rise to a persistent sinus which did not clear up until a second operation was done.

"In regard to bisischial narrowing: the question of proper treatment of the soft parts to overcome the dystocia is one to be considered. I am becoming more and more inclined to do wide Suchard incisions in those cases where there is some difficulty at the outlet. I think that has saved me a whole lot of trouble."

DR. JAMES P. MCMANUS: "I believe that the indications which the doctor has given us are most complete. The only thing I might say as to the choice of operation is that I feel the reports in clinics throughout the country show positively that the results from the laparo-trachelotomy or low flap operation are much better than the low classical. I feel that those results justify the exension of the indications for the low cervical operation in all but real elective cases, those being the only cases in which the conservative section should be done if the case has not gone into labor and has not been examined. It is becoming more and more prevalent, the lower cervical operation, and the results undoubtedly justified its more extensive use."

DR. H. P. MENCKEN: "I agree with Dr. Lawrence regarding the frequency of cæsarean section, and I might state in this way: I think too many sections are being done and, paradoxically, not enough sections are being done. That may seem to be a counter explanation, but I might say this: I think that too many cæsarean sections are being performed throughout the country because of an ever increasing indication, or so-called indication, for the operation. I have known of sections being done for persistent occiput-posterior positions, so-called. I don't think

(Concluded on page 180)

The Rôle of Mental Hygiene in School Life: An Inexpensively Administered Clinic

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Washington, D. C.

IN children many peculiarities once called neurotic, and muddled in treatment, are now understood to be essentially simple and are readily dealt with in relatively little time. This I demonstrated to the American Psychopathological Association in 1911. (Juvenile Psychasthenia, *Amer. Jour. Med. Sc.*, December, 1911. Psychogenetic Disorders in Children. *Jour. Abnor. Psychol.*, January, 1912.)

Nowadays the doctrine has passed into common use, and the disorders, when psychological, are generally known as maladjustments. They can be described in homely language understandable by any mother, as Douglas Thom has shown in the very simple leaflets now issued by the Federal Government.

Nevertheless, any individual case may require for its elucidation much knowledge both of psychology and medicine, great finesse in approaching the child, as well as skill in the elaboration of methods for its adjustment to surroundings which may be quite difficult.

The teacher's prime duty has been the development of children's intellects, but in attaining this object, obstacles have to be overcome which are in the sphere of the child's behavior. This depends upon emotional trends which have little to do with academic interests. They have arisen through the child's surroundings, even in infancy, but are also the product of an innate temperament. The child's disposition is also much modified by the physical state. So is the intellectual capacity; and this has been recognized in the movement for special nutrition, for the care of the teeth, and for bodily hygiene in general.

But the behavior discipline of the child has not been adequately dealt with. The frequency of problems of conduct as obstacles to the child's intellectual and social development has lately been widely recognized. To meet this, mental hygiene clinics have been established for public school children in over two hundred American cities. The function of these is to penetrate the individual psychology of the child who is not adjusted well to his classroom work, in order to re-direct the child's emotional trends, and thus harmonize it with what is, to some children, a difficult environment.

Research usually shows that it is maladjustment in the home which is primarily at fault. The mental hygiene of the parents then becomes an objective also, more particularly as concerns children in the primary classes. But in older children, more especially in the high schools, it is the child itself which has to be dealt with as a separate individual; for without its cooperation, the efforts of the parents will be vain, even when they can be re-educated—often a difficult and tedious matter.

It is no work for amateurs. Only a highly trained and experienced psychiatrist can hope to succeed in difficult cases, and the majority of the cases are difficult. Neither common sense nor pedagogic training is adequate in the absence of professional knowledge of psychopathology.

Such a clinic was established at the Red Cross Headquarters of Dade County six years ago. The Woman's Welfare Association, the Red Cross, and the Superintendent of Schools espoused the movement, so that some six hundred children of all ages were examined during the four winters it was conducted. The great majority of these were rendered adaptable to the school curriculum. Some of them required definite physical treatment, and that not always neurological, although cases frankly of physical type were supposed to be weeded out by school nurses, city clinic, or family physician.

During the last three winters the clinic has been suspended on account of the lack of assistants, nurses, teachers and volunteers. The economic situation was partly responsible; for the diminished number of nurses could scarcely perform their other work, visiting teachers were given up and voluntary assistance ceased, while during one year the writer was absent in Italy.

Disturbances of the internal secretions have often been responsible; and treatment by rehabilitation of the function of some gland (a dangerous procedure in the hands of the inexperienced) has been most successful in numerous instances.

Most cases, however, are psychogenetic, that is to say, caused by harmful influences which have spoiled the temper, produced morbid fears, fostered shame or diffidence, or have encouraged reckless or rash attitudes, or have fed egotism, or have nursed a morbid sensitivity, or have failed to take account of the fact that a child has emotions, sentiments, and mental attitudes which cannot be ridden over roughshod without serious pain. All this seems like mere common sense. but in practice, it means very careful skill to elicit from the child the responses which will give the key to the morbid situation which is the root of difficulties in the school or home.

Very few can picture how they felt when children. They forget how lacking in purpose is a child's behavior, how he is the prey of the feeling of the moment.

A boy was brought to the clinic because he would persist in stealing. It was found that he stole not because he wished more food, luxuries or moving pictures, but because of a vague state of discomfort. The act of theft furnished a stimulus; it was not the theft which he enjoyed but the action involved. He might just as well have resorted to smoking, candy gorging, or mischief with the gang.

Two courses of treatment were utilized. One an improvement of the physical state by opotherapy. This in itself would not have done away with the stealing, which had become a habit. The changing of this required the furnishing of an interest which gave greater satisfaction than theft.

In some cases this has been afforded by a carpenter's bench at home, or by developing interest in radio, whlie in other cases athletics has been the means of salvation. Boy scouting and expeditions and similar activities are more suitable for other boys.

No remedy must be arbitrary; each must be fitted to special characters of the patient and the circumstances.

Although it is true that fascinations and aversions sometimes precipitate psychoneuroses, by far the com-

monest causative emotion is fear. It is equally true, however, that thousands of fears occupy the minds of others who are not actually psychoneurotic; but many of them are potentially so and become so when stresses accumulate or when resistance diminishes, or when special insistence is added to the stress by wrong thinking. Suggestion from without plays a strong part in this.

Although fears bred by superstitions are becoming less frequent, yet the anxieties of persons of to-day are found to be similar in psychological mechanism although their basis masquerades as science or prudence. The fear of disease is usually due to ignorance of the nature or cause of the disease one fears. Morbid apprehension of cancer, tuberculosis, venereal disorder and spinal disease is always ill founded. Even dreads of particular situations, acts or persons are found to be based upon distorted viewpoints just as is a superstitious fear so based. Hence the great importance of reeducative procedures in removing psychoneurotic fears.

A lad of fourteen had shown inattentiveness at school, day-dreaming and absence of mind at home. Psychic exploration shows that his ruminations were because of the wish to atone for the wickedness he felt, because of having been blamed, on account of the jealousy he showed, when a little boy, towards his newly born brother. The psychology of his trend of mind was worked out in a period of four months during four interviews. The reconditioning of his distressing emotions enabled him to finish his school and later to enter what was to be his future occupation.

A girl of sixteen had to be removed from a finishing school two days after she entered it because of intense emotivity. Her intelligent parents could not conceive of anything in the child's life of which they were not thoroughly conversant; and yet careful exploration showed that the poor girl had been living in daily terror of retiring to bed alone, and would sit shivering for hours on the stairs in her nightgown until her elders came to bed. The terror invaded her sleep, preventing proper rest, with its accompanying weaknesses, the attention to which was detrimental to the development of her character. The reconditioning was effected in a month. As a result of two weeks' treatment, she was able to undertake school and social life with entire success so that for six years she has been untroubled by her former emotivity.

A little girl while walking in the evening from one house to another is suddenly startled by the loud roar of a passing street car. She realizes that she is alone, and becomes alarmed because of a possible vague danger. From this arises the habit of fearfulness which accompanies her into school life, which renders her timid. However, without much effort she succeeds in evading the test of circumstance; but in college she has to face recitations and other occasions of being conspicuous. Diffidence and fear so poison her thoughts that she is unable to concentrate at work. Insomnia brings agitation and she has to leave college disappointed and exhausted to the point of torpidity. By means of giving her an understanding of this mechanism, the setting of her mind is changed so that fear no longer besets her and she becomes happy and well in a few weeks.

(See author's "Dreads and Besetting Fears," Little, Brown and Company, Boston, 1923, for relation of many cases in full.)

The same is true of sex offenses, which seldom arise from depravity, but more often, like thieving, from the "need of activity which has been accidentally misdirected. The saying about "Satan and idle hands" remains true to this day.

The suggestibility of the child leads to easy conformity with what goes on around him, and thieving, sex offenses and truancy as well often have this origin.

A girl of eleven fell below grade because extremely inattentive, and was constantly on the alert to draw attention to herself on the part of both teachers and other pupils. She was looked upon by the school nurses as an exhibitionist. Examination revealed an intelligence level two years below her age, and a bodily unskilfulness which precluded success in games. A sense of inferiority of which she was scarcely even aware was the motive for her behavior, which was an effort to find social satisfaction in showing off. This compensated her inferiority in other respects. She greatly improved when these factors were dealt with in the school.

An adopted girl of nine was brought to the clinic because of severe tantrums. The mother was very eager to make her happy, and the child professed much affection for her. But any attempt at control might provoke a passionate outburst of screaming and violence. This behavior was due to the very common resentment against control directed particularly to oneself; for when in a group, as in the Children's Home, where she was sent, the child conformed perfectly. Her reaction was rapid and violent although it might endure only several moments. Mere inhibition by herself, so-called self control, only succeeded for a day or two, after which a lapse was invariable. It was concluded that the adopted mother, although meaning well, was unable to acquire the requisite touch; and not being accustomed to children aggravated the little girl so that no expedient we tried succeeded at home.

This type of behavior is all too common in adults although for the most part overt rage is not manifested. Susceptibility to slight in these cases becomes a vice which may even lead to paranoidal insanity, which in an adult can be eliminated only by psychological reconditioning at the hands of an expert, leading to a truer social philosophy. Children should be brought up in such a way that they do not look upon themselves as specially privileged creatures kept in cotton wool.

A wrangling sullenness under a sense of injury is almost more destructive to the morale of its victim than are rages, because there is less chance of it being kept in bounds through social contact.

It is surprising how soon this attitude can be converted into a cheerful cooperation in the clinic through the enlightenment of the child concerning its own motivations of which it was not previously aware. Scores of cases could be adduced.

Fears, malice, envy, jealousy, shame, anxiety, restlessness, discouragement and other morbid emotions can be successfully transformed into healthy sentiments through a sympathetic understanding of a competent psychiatrist. The rectification of faulty emotional attitudes is of incalculable benefit, not only to the child itself and its family, but to the teachers and other children in the school.

The management of a patient in whom the functions of the nervous system are disturbed can only be properly undertaken as a result of a correct diagnosis. This means more than giving Greek names to symptoms, it means an understanding of the reactions which are preventing the patient from performing his functions, from making movements he should, from having the sensation we expect, from thinking as clearly as he ought, from feeling in harmony with the situation in which he is, from believing as he should.

In investigating this question, we first try to find if the disturbance of function is the result of a lesion in the nervous system. If it is so it manifests itself by

clear reactions known as physical signs, and the case is relatively a simple one to a neurologist who knows his business. The management of these conditions is always physical, wheher surgical or medical. When the functional disturbances are not caused by lesions there are two origins possible. One of these is the interference with neural activity by poisons such as those which are fabricated by bacteria. The functional disturbance of the brain shown in the course of the infection by Eberth's bacillus known as typhoid fever is a familiar example. Disturbances of neural functions by poisons which have not come from bacilli are familiar to every one in alcoholism and in opium, cocaine and hashish poisoning. The managements of these effects, is always physical, whether surgical or medical. Functional disturbances of which the chemistry is now being elucidated occur in the disorders of metabolism known as diabetes, Bright's disease, Graves' disease, etc. When the glandular secretions are altered too, the central or peripheral nervous system may be disturbed chemically. The treatment of such disorders must be physical. To require physical treatment need not exclude the use of psychological treatment also, in order to antagonize some of the effects of the physical disorder which may even be aggravated in the absence of proper psychotherapeutic care. But no amount of this will suffice to get rid of the patient's disease. In principle, the situation is that which is often observed in acute alcoholism or febrile delirium. In both of these, quiet surroundings and a nurse's soothing hand are of value, but in neither will they effect recovery; for that requires the restoration of a healthy metabolism, by overcoming an overmastering toxicosis. Psychotherapy is adjuvant, advantageous, but not essential.

But in a great many instances improper functioning of the nervous system is exhibited by persons who are not poisoned and who have no lesion of the part of the nervous system showing the symptoms. It is the physical stimuli required for the regulating behavior which have been at fault. We call these psychological disturbances. Their management is neither a question of dealing with lesions nor of acting against poisons nor of modifying nutrition. Their management consists of modifying incoming stimuli, in order that we may modify outgoing reactions, that is, behavior.

1801 I Street.

A Consideration of Cæsarian Operation

(*Concluded from page 177*)

that is justifiable, and if there is an increase in the indications for the operation, we naturally would expect to have more sections, a greater number of sections. As I tried to bring out in the paper, I feel that it has a certain percentage of mortality in the best of hands, about 2 per cent; going all the way through, it is about 10 per cent. Now, you wouldn't consider that good: I don't think if you were going to do hernioplasty that 10 per cent mortality would be all right; you would think it was too high, wouldn't you? I imagine you would. I don't think you have anything like that. But I say again that not enough caesareans are being done and that can be explained this way—that too many cases are neglected; they are neglected regarding the disproportion between the size of the fetus and the size of the pelvis. In other words, those cases come in, go into labor and are brought to the delivery room; the fetus is probably dead when the patient arrives at the hospital, the head rides around, and craniotomy is probably the operation that is eventually used to deliver the fetus. Possibly that case could have been saved by early section.

"Dr. Lawrence brought up the question of ventral suspension. I think I was somewhat in error there because I should have said ventral fixation. I should answer Dr. Wrana's question at the same time where he brought up the point about ventral fixation; it should really be a ventral fixation. I think that under ordinary conditions if you do a ventral fixation on a woman during the child-bearing stage of her life, it is preferable to sterilize her at the same time by ligating or resecting a portion of the tube on each side: I think sterilization should be done. On the other hand, Dr. Wrana brought up the question of the Gilliam operation. The Gilliam is no reason for doing a section. All of us know that we have delivered normal cases, have had spontaneous labors, following the Gilliam operation; in fact, I remember one case in which I did a Gilliam on a patient in St. John's Hospital. She went home in a month, became pregnant and had a perfectly normal delivery, the Gilliam suspension holding perfectly well, even in that short space of time.

"Eclampsia Dr. Lawrence brought up as a question of whether to do a section. Statistics ordinarily show that better results are obtained by treating cases of eclampsia as such and not delivering the patient. It does not seem exactly right when you look at it in another way. The patient that you see is having convulsions, one after another, and it would seem that the logical thing to think of first would be that she would not be having these eclamptic fits if she weren't pregnant, and that if you could remove the cause of the eclampsia,—the pregnancy,—that is deliver her rapidly and at the same time remove a certain amount of blood, that that would seem the operation of choice in all such cases. Statistics, however, throughout the country do not bear that out, and the Strogonoff treatment or some modification of that apparently gives better results than cæsarean section does in these cases. I mentioned that one case of plural pregnancy as being one of those: I felt it was worth while and the results seemed to justify the means. I think that that was an exception, however.

"As Dr. McManus pointed out and the records around the country of the amount of work done with this flap operation show, together with the popularity it has gained throughout the country, it seems to me that that makes it worth while as an operative procedure. It takes about fifteen minutes longer to do than the ordinary classical operation, and it is not especially difficult.

"In respect to infections by manipulation: I don't think, Dr. Wrana, I don't know, I cannot look at it that way, that that is much of an etiological factor in the causation of infections. I think it is more likely that more of our infections come from below. It does not mean that we are entirely responsible for every case which runs a temperature, but the case may develop a temperature through some external infection introduced before the patient came into the hospital. I think that where we see cases running an infection, probably sexual intercourse plays an important part in some of those cases where labor sets in somewhat early, or early rupture of the membranes occurs. I have been sufficiently interested in some of these cases to question them as to whether they have had sexual intercourse before the onset of labor, and it is rather remarkable to find how many of them admit sexual intercourse and that labor set in, or the membranes ruptured, a few hours afterwards. It would seem advisable under those conditions that we should advise our patients to avoid sexual intercourse during the last six or eight weeks of pregnancy; it might be so much better if they did.

"Dr. Lawrence spoke last of the cleaning out of the pelvis of blood-clots and free blood after the operation. I think that is something that should not be neglected in any case of cæsarean section. There is a tendency for blood to form in the posterior cul-de-sac, the uterus can be brought forward and a gauze pad inserted there and the pelvic toilet completed after the uterus is allowed to drop down into its normal habitat, and a sponge stick or another lap pad can be passed in over the bladder area where infectious material has a tendency to collect. The reason for removing the blood is less postoperative morbidity and less likelihood of adhesions taking place."

The Present Status of Electrocoagulation of Tonsils

The relative advantages and disadvantages of surgical removal and electrocoagulation are compared by Novak (*Arch. Phys. Therap., X-ray, Rad.*, 1931, 12, 226). He arrives at the conclusion that, although surgical removal is not an ideal technique, in that it is liable to difficulties and complications, it is at present the best available technique. The removal of tonsils by diathermy is not devoid of risks, and the proper technique is not easy to learn or execute. A properly executed surgical tonsillectomy is a neat, swift, complete, workmanlike job in the ordinary case. Under similar conditions, diathermic destruction is slower, lacking in the precision and control characteristic of good surgery, and there is always the unpredictable factor of the depth of penetration obtained. Nevertheless, electrocoagulation has its place as an adjunctive method, and is the operation of choice in certain selected cases, especially those which are poor operative risks.—*Am. J. Med. Sc.*

Sciatica

Search for cancer of breast causing metastasis in spine and hip as cause of sciatica.

Special Article

The Department of Urology, Long Island College Hospital, Brooklyn, N.Y.

Hospital and Out Patients' Clinic

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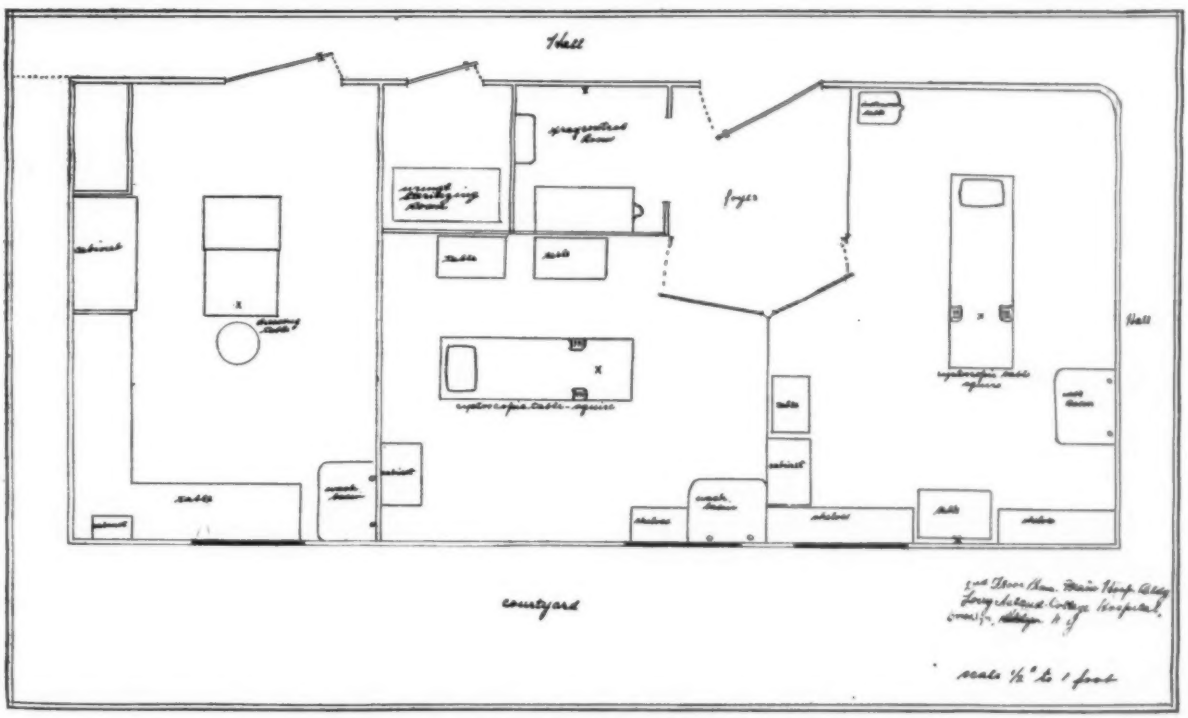
THIS presentation may be of use to others when planning the use of space for either an Out Patients' Clinic, or Hospital arrangements. The entire floor space used in our Hospital and Out Patients' Department is 5,267 square feet, but the same principles of division can be applied to any space.



PLAN NO. 1. DEPARTMENT OF UROLOGY IN HOSPITAL.

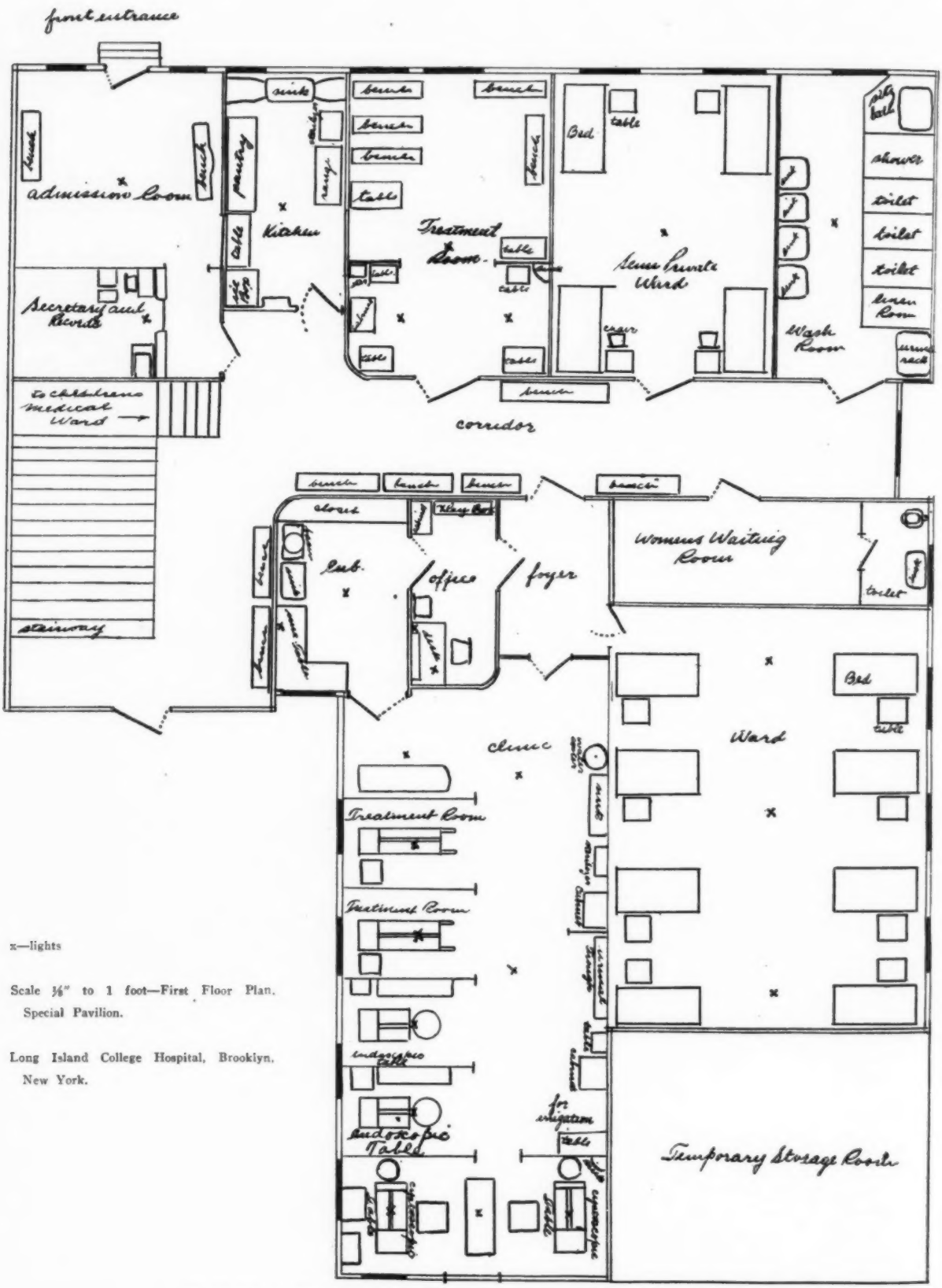
THE HOSPITAL DEPARTMENT

A. These diagnostic and treatment rooms are located on the second floor, in one of the Hospital wings. Room No. 1, 9 feet by 13 feet for dressings, therapy and diagnosis not requiring radiography.

B. Two Cystoscopic rooms are entered by a single door, but separated into two rooms of approximate size and equipped alike with a Squier cystoscopic table and so forth. Immediately below this space is the Department of Roentgenology (Dr. Loomis Bell, Chief). All radiographic diagnoses and therapy are done by this department, in association with the Urologic workers. The floor space used in the two rooms amounts to 273 square feet (see plan No. 1). The advantage of the double cystoscopic tables is that two patients can be examined and treated simultaneously. We are careful to give each of our assistants definite hours at which he can work on his private patients, and to respect these appointments as we would those of the operating rooms. In this way the assistants on the staff know when they can work, and thus do not lose time waiting for the head of the service to complete his affairs.

The organization of the department consists of Chief of Service with two associates, and as many assistants as are necessary. Here we have the great advantage of two paid residents, whose time of service is two years, so that when the Junior Resident takes full charge he has had one year's experience with us in the hospital. Before being accepted he has completed a term of at least one year in general hospital work, and frequently more.

No Resident before leaving fails to be properly



x—lights

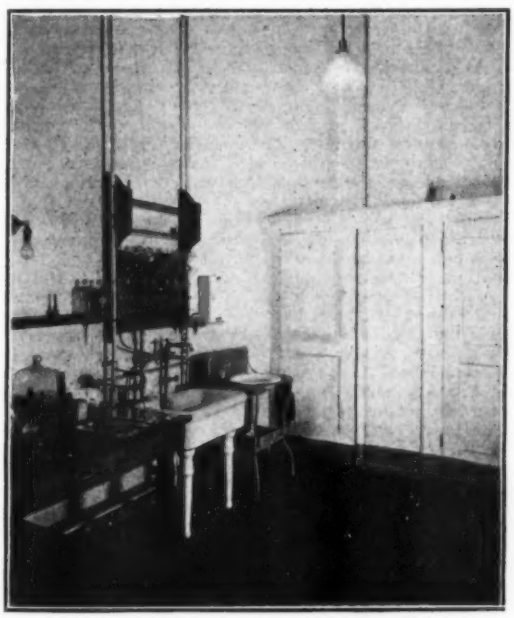
Scale 1/8" to 1 foot—First Floor Plan. Special Pavilion.

Long Island College Hospital, Brooklyn, New York.

PLAN NO. 2. OUT PATIENTS' DEPARTMENT, DEPARTMENT OF UROLOGY.

1. CONSULTATION ROOM OUT PATIENTS' DEPARTMENT.

3. MAIN TREATMENT ROOM OUT PATIENTS' DEPARTMENT.



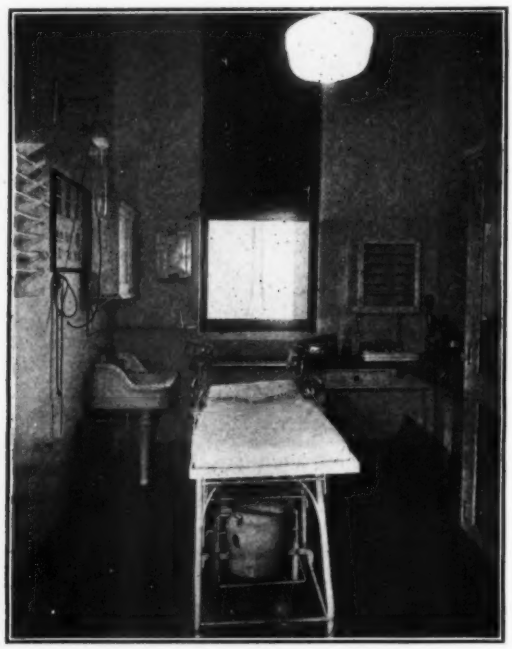
2. LABORATORY OUT PATIENTS' DEPARTMENT.

4. REAR OF MAIN TREATMENT ROOM, FOR CYSTOSCOPY, ETC.

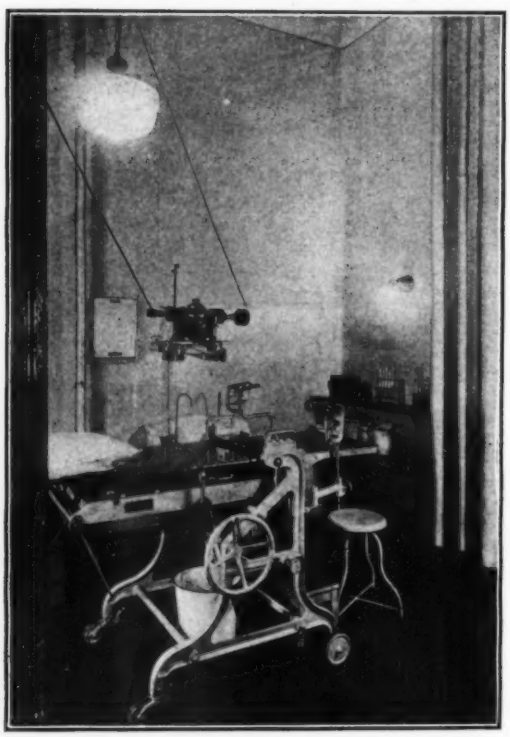
trained in major surgery pertaining to the urological tract, and in addition to this his duties require that he serve each day in the Out Patient Department, where he learns to treat properly gonorrhea and syphilis.

The Out Patient Department is in no way divorced from the Hospital service; we visualize the patients as of equal importance from the moment one of them enters the Clinic door, whether the disease requires ambulatory or dormitory care. It is located on the ground floor of one of the Hospital wings, but is administered by the Board of the Polhemus Clinic opposite. The Out Patient Department (see plan No. 2) consists of a reception room for male and female patients, a small consultation room for the individual patient, a small but complete laboratory with microscopes, and the main workroom, which is divided into five separate cubicles, all alike, on one side, while on the opposite side are a sink, sterilizer, instrument case, and irrigation apparatus. At the end of this room there are partitions, with a door covered by a sheet, providing space in which are arranged three tables for cystoscopic and endoscopic work. Adjoining these two work rooms there is a ward with 10 beds, well lighted, in which cases with gonorrhea and syphilis can be treated continuously,

and can be isolated from the rest of the hospital. Across the hall from this is a large room, 21 by 15 feet, where private patients are treated. This has four beds and has been found of great value for the type of patient with gonorrhea or syphilis who lives alone, or who wants to be isolated from his surroundings, and desires semi-privacy with all the facilities for expert treatment. Between the waiting rooms and the workroom and ward there is a large hall, at one end of which there are numerous lavatories and one large cubicle with a sitz bath. Across from this is a separate lavatory for women and children. The records are part of the central filing system of the Polhemus Memorial Clinic, but there is also a special file for active cases kept in the office of the admitting officer of the Clinic. The general Clinic is across the street in another building, and we found that the time lost in sending for the histories interfered with rapid disposal of cases.



5. TREATMENT ROOM IN HOSPITAL.



6. ONE OF THE DIAGNOSTIC ROOMS IN HOSPITAL (CYSTOSCOPY, ETC.)

The Out Patient Clinic is in use three mornings a week as a Urological Clinic for Women and Children (no gonorrhea or syphilis is treated). There is a daily Clinic from 1-2 p. m. and a night Clinic twice a week. In the Women's Clinic female nurses are in attendance, and in the Male Clinic there is one regular male nurse. About 100 patients per day can be comfortably handled with this arrangement. Each cubicle has wooden sides, with a sheet suspended by rings from a heavy wire. This arrangement, by affording patients semi-privacy, has encouraged those with social diseases to seek and continue treatment. The separate cubicles enable instructors of student and postgraduate groups to give prolonged instruction without offense to patients.

130 Clinton Street.

The Danger of Thrombosis from Intravenous Injections

On the basis of four illustrative cases, E. Seifert says there are good reasons for concluding that intravenous injection, as such, is by no means devoid of danger, and that it may be immediately responsible for extensive thrombosis at a distance from the site of injection. In a case like the following, for example, there can be no doubt of the connection: A man with symptoms diagnosed as chronic cholecystitis received an intravenous injection of 10 c. c. decholin (a proprietary remedy), which was well tolerated. But on the second day there appeared faintness, slight fever, pain in the sole of the right foot, heaviness in the entire right leg, and swelling in the calf; on the third day, sharp pain in the costal arch, higher fever; on the fourth day, bloody sputum, pointing to a small pulmonary embolism, which must have originated in the deep thrombophlebitis of the right leg, which in the succeeding days extended to the veins of the pelvis. In this case the drug decholin acted evidently only as an irritative foreign body within the vascular system. Intravenous injection of one's own blood may have a similar effect, as is shown in one of the cases cited. A case in which the thrombosis must have been the result of demonstrable injury of the blood or of the vessel wall is that of a previously healthy woman, who failing to make a prompt recovery from grippe, was given a supposedly effective remedy intravenously. Scarcely a half minute later the patient collapsed, was restored with ephedrin, but during the next 5 hours suffered with increasing paresthesias in both hands, labored breathing, lapses of consciousness, aphasia, paraphasia, cortical amaurosis, leading at last to complete loss of consciousness with threatened paralysis of respiration; the general condition became better toward night, but pains now appeared in the soles of both feet, and a thrombophlebitis of the deep veins of both legs developed, which did not regress for 3 months. Here the coincidence in time proves beyond all doubt the etiological connection. This case teaches that the logical bridge between the injection and the distant thrombosis is constituted by the disturbances in the central organ, which with the greatest certainty must be attributed to a severe vessel injury. It would appear that caution should be observed in introducing into the vascular system solutions of metallic salts or foreign proteins, both of which have a striking effect upon the entire reticulo-endothelial system. The physician frequently has some latitude of choice between injection of a more irritant or a less irritant substance, and should choose the latter.—*Münchener medizinische Wochenschrift*, January 29, 1932.

Circumcision and Penile Cancer

Wolbarst (*The Lancet*, Jan. 16, 1932) states that phimosis is the most important factor in the causation of penile cancer and that there is no record of a case of penile cancer in a circumsized Jew. He believes that circumcision in adult life or adolescence does not fully protect against future malignancy because of the tissue damage already effected. "Chronic balanitis" in the middle aged or elderly should always be regarded as potentially malignant.

Special Article

Social Insurance—Most Governments Are Inefficient or Corrupt—Some Are Both (Continued)

EDWARD H. OCHSNER, M.D.,
Chicago, Illinois

WE come now to what is probably the weakest spot in the government—the judicial interpretation of the laws and their legal administration. Some of the worst features in the administration of criminal justice in particular, in most of the states and sometimes even in the federal courts, result from countless postponements, hair-splitting technicalities, innumerable appeals, and numerous reversals with their resultant delays and miscarriage of justice. Volumes could be written on this subject alone but one illustration of each method of delaying justice will have to suffice.

A known gunman has been indicted six times in the last eighteen months. Every time he has been released on bonds he has become involved in new crimes. In spite of all this he was given thirty continuances on the first indictment. Commenting on this and many similar cases, Henry Barrett Chamberlin, Operating Director of the Chicago Crime Commission, recently made the following statement:

"Repeated postponements in the trial of a criminal case is the most serious obstacle in obtaining a just verdict."

The following is an illustration of how intense legalism and the glorification of technicalities only too often defeat justice. The case is taken from a decision of the Illinois Supreme Court, Volume 258. This decision was handed down many years ago but it still stands. An eleven-year-old girl was dragged into a basement apartment and mistreated by a fifty-year old man. He was found guilty and sentenced to the penitentiary for five years. The Supreme Court reversed the sentence, not because of any doubt concerning the defendant's guilt, but because the child's first name had been set forth as Rosetta instead of Rosalia in the indictment.

In most major criminal cases in nearly all of the states of the union the convicted person has three and sometimes even more chances of appeal and one or two chances of executive clemency. Each time he has a chance to find a loop-hole and to make his escape while society is denied an equal chance to protect itself.

Our laws have been so emasculated by mollycoddle reformers that it is almost impossible to convict a criminal and keep him convicted or to convict one or a group of men who maladminister government departments. A case in point. Between the years 1915 and 1919, four real estate experts were paid $2,736,868, out of the city treasury. It was common knowledge that the payments were grossly excessive and that a good deal of this money ultimately found its way into the political fund of the administration and yet the Supreme Court reversed the verdict of the Circuit Court, which had found the defendants guilty, because it claimed that the prosecution had not proven that any member of the administrative body had personally received any of the money. To the laymen the language of the Supreme Court seems to say that if the administrative officer chooses to look in the other direction when the money is being stolen he cannot be held responsible. I do not presume to criticise the courts in these decisions, the fault may be in the laws, but no one will claim that all this spells governmental efficiency, and that is the point under discussion here. In this connection I wish to quote a jurist who was known for his outstanding fearlessness and integrity and his profound knowledge of the law. He characterized the Municipal and Circuit Courts as the Courts of Original Error, the Appellate Courts as the Courts of Intermediate Speculation and the Supreme Court as the Court of Ultimate Conjecture.

While most of these illustrations have naturally been taken from Chicago and Illinois, similar instances in many other places prove that conditions are just as bad. We need but refer to the recent dismissal of five judges for gross inefficiency and corruption in New York City and to an address of Samuel Seabury to the Justices of the Appellate division of the Supreme Court of New York in which he said, "It is for you to say whether the magistrates' courts shall be turned into bargain-counters where justice is bought and sold, when political leaders are brokers dealing in influence." In smaller governmental units the corruption and inefficiency are, of course, on a smaller scale, but in many instances they are there just the same. One writer in a popular magazine sizes up the whole situation in the following words: "From Teapot Dome to our latest Municipal Court scandals we have seen enough of political and public malfeasance to believe almost anything of our lawmakers, courts and public guardians."

We have devoted this much space to the discussion of governmental inefficiency because it is fundamental. If we have demonstrated that most governments are inefficient or corrupt and that some are both and that there is no likelihood of marked improvement in the immediate future, then we have proven that it would be unwise and unsafe to entrust so vital a function as the control of medical practice to governmental supervision. If one were to record all the evidence of inefficiency and corruption which occur in all the governmental units of this country in one year alone it would require volumes instead of a few short articles.

The purpose of these articles, however, is not so much to give detailed information as to arouse the profession of medicine and through it the general public to the impending danger.

(The next two articles will show how the quality of medical services deteriorates under compulsory health insurance.)

2155 Cleveland Avenue.

Mycosis Fungoides

D. Symmers states that the condition familiarly known as mycosis fungoides is one of the most confused and confusing to be encountered in the domain of medicine. In the author's opinion, the post-mortem and histological observations show that mycosis fungoides is the cutaneous expression of at least three different diseases of the lymph node system: Hodgkin's disease, a variety of round-celled sarcoma arising from the connective tissue reticulum of lymph nodes or elsewhere, and lymphosarcoma, originating in the lymphoid cells of the lymph nodes or of other lymphoid structures—in short, that mycosis fungoides as an independent form of disease does not exist.—(*Archives of Dermatology and Syphilology*, Chicago, January, 1932, xxv, 1.)

Medical Economics

Department Editor: THOMAS A. MCGOLDRICK, M.D.
Chairman Committee on Medical Economics of the Medical Society of the County of Kings, Brooklyn

Forethought and Self-Defense

AMONG the many subjects stressed in the recent very valuable report of the Committee on Medical Economics of the Medical Society of the State of New York is the definition of Medical Economics. It would seem unnecessary to mention in medical circles that "Medical Economics is not acquisitiveness." In the application to the sick of every scientific discovery of service and every remedy of value, from the time of vaccination against variola and before, to these days of insulin therapy, individual and public good, and not his pecuniary reward, was the motive of the doctor, although as Secretary of the Interior Dr. Ray Lyman Wilbur has just announced, the doctors generally are decidedly underpaid. In the mental workings of the professional uplifter, many social agencies, "big business" and politicians, the purposes of the medical profession seem so forgotten or disregarded that plans for social improvement are made and legislation attempted that would, in practice, prove injurious to the sick and unjust to the physician. These lay workers do not see the danger in a lowered quality and quantity of medical service, or a diminution in the number of men seeking entrance in the most difficult and most costly of all the professions.

The efforts of the non-medical social workers have been only too often aided by doctors themselves, who in their intense interest in the sick have lost sight of the material interests of themselves and their profession. Formerly the subject of Medical Economics was rarely, if ever, discussed at medical meetings. A few weeks ago, when three members of the Washington Committee on the Costs of Medical Care presented papers before one of the best known societies in New York City, the president explained that the occasion was the first in which economics had ever been discussed within its walls and that it was necessary to secure permission of the Board of Governors before the meeting was held. There will be few explanations needed in the future. The profession at large, by force of circumstances, has awakened to the importance of medical economics and to its clear separation from commercialism. Nearly every medical society now has a committee studying these and allied problems. Guilds and medical alliances hope to make such studies their only work. The Medical Society of this State has expressed its appreciation of the importance of the subject by creating the able committee appointed one year ago, and in the report taking twenty pages in the April *Journal* the committee has shown its grasp of the subject of economics and the painstaking, self sacrificing attention they have given it.

The work, however, must not be left to committees. Much of the present annoyance and burden of the doctor must be charged to his individual lack of necessary vigilance. When the present New York State Workmen's Compensation Law was enacted, providing relief for those disabled in industry, there were placed on the administrative board of ten representatives of the State, of employers and of employees. The proper medical and surgical care of the injured was the most important requisite for the success of the Act, yet medicine was not and is not represented on the board. In some of our states bills for health insurance have been already introduced, in other states bills have been drafted for introduction which permit gradual but increasing encroachment by government into the private practice of medicine, and little or no supervision or constructive criticism has been exercised by the profession.

In the present law of New York City controlling the Department of Hospitals there was inserted a section forbidding the payment of any compensation to doctors for services rendered the sick. No other profession, no class of laborers, no other individual was so singled out as the doctors who were donating their services to the sick poor.

The fees earned by the surgeons for the surgical care of workmen coming under the Compensation Law are paid by the insurance carrier, are collected by the municipal hospitals and are deposited, not to the credit of any doctor, but in the General Fund of the City. At present, the amount so collected, annually, is over a quarter of a million dollars. Constant vigilance would have averted these great mistakes. The vigilance must be supported by a strong, united profession and a knowledge of all the economic facts, or there will be lost to the sick and the general public much of the good of advancing scientific medicine. Every invasion of government into private fields must be always resisted or we may find, as Dr. Hugh Cabot has recently stated, that advantage will be taken of such depressed times as now prevail to make these encroachments suddenly, with little forethought and without consultation with the medical profession.

Practical Hospital Economics To-day

At the last meeting of the Trustees of the United Hospital Fund the suggestion was made that hospitals receive remuneration for assistance given the unemployed, at the rate of $3.50 a day for each person aided. A short time before that, according to the daily press, at a meeting of the Hospital Association of the State, it was urged that the maintenance costs of patients might be greatly reduced by diminishing the scientific research work in each institution. It would seem time fully to understand and restate the purpose of a hospital. Primarily its purpose is to care for, to relieve and, if possible, to cure the sick person entrusted to it and to apply its resources to as many as possible of the sick. Every equipment of real help that is obtainable, every remedy and comfort that earnest director and benevolent trustee can secure, all the faithful attention and skill that earnest and able doctors possess must be ever at the service of the sick person. Nothing in the name of science, and nothing harmful, may ever take precedence over the benefit of an individual patient.

It seems, sometimes, that these ideas have undergone modification. Every hospital, though not connected with a medical college, is supposed to have ever in mind its duties as a teaching institution. Resident younger doctors in numbers must be taught ways of scientific research and publication, while the older doctors must have cases interesting from the scientific viewpoint for their atten-

(*Concluded on page 188*)

Cancer

Department Editor: JOHN M. SWAN, M.D., F.A.C.P.
Executive Secretary, New York State Committee of the American Society for the Control of Cancer

Cancer of the Mammary Gland

CANCER of the breast ought to be a preventable disease. The breast is a superficial organ that can be easily examined. In 1931 there were 1,587 deaths from cancer of the breast in New York State, or 12.34 per 100,000 population.

Explanation of this large number of deaths and this high death rate may be sought under three heads. First, delay on the part of the patient in applying to the physician for advice, so that metastasis has occurred before the patient is seen. Ducuing[1] in 1928 reported 106 cases of cancer of the breast observed prior to December, 1926. He says that breast cancer is a very grave condition because it is practically never operated upon at the beginning and because only 3 per cent of the patients have no enlarged regional glands when they consult the surgeon. Erskine[2] in referring to delay on the part of the patient says that she believes an operation, if not successful, would hasten death or that she would be disabled for a long time following the operative interference, and so postpones it until a more convenient season.

Second, the failure of the first physician who sees the patient to make an examination of the breast. The breasts should be studied in the course of every physical examination made of a female patient. "Certain signs of breast disease are so important that they should always be uppermost in the mind when examining a mammary gland. They should be sought for always and their value appraised in every examination. Previous experience of many examples of disease should be trusted with extreme caution, and to negative a diagnosis because the patient is too old for such a state or too young for another may prove how misleading may be the age of a patient." (Cheatle and Cutler, 3, p. 257). These signs are tumor, loss of weight, retraction of the nipple, bloody or other discharge from the nipple, puckering of the skin, tenderness, and enlarged axillary or clavicular lymphnodes. Radiograms of the chest, pelvic study, examination of the abdominal viscera and tenderness on pressure over the bones or spontaneous bone pain are also to be kept in mind, provided the physician desires to make an estimate of the nature and the extent of the disease for which the patient seeks advice.

Third, the tendency of the physician who first confirms the existence of a breast tumor, or who is first consulted about bleeding nipples, to fail to advise immediate surgical removal of the mass with histological examination. Erskine[2] says that the reasons for delay in operation for breast cancer are two: first, fortunately a small group, because the first physician consulted advised "watching and waiting." "That physician is hopeless and that patient is helpless."

Assuming that a patient consults a physician for a discharge of blood from the nipple, what is the physician to do? The most important thing for him to do is to examine both breasts of the patient. The bleeding may come from a benign tumor or from a malignant tumor, or it may be traumatic. In 108 cases of bleeding from the nipple Adair[4] found cancer in 47.2 per cent and benign tumors in 52.8 per cent. Grönwold[5] says that radical extirpation is indicated for this symptom.

Pribram[14] believes that hemorrhagic cyst epithelioma is the most common cause of hemorrhage from the nipple. He thinks this tumor, in regard to malignancy, lies between the benign and the malignant growths. He removes the breast, has never seen a recurrence; but emphasizes the necessity of keeping the patient under "constant medical observation."

Klages[15] reports seven cases of bleeding from the nipple, in all of which, histologically, there was cyst formation. He says that while the condition may be considered to be benign in the majority of cases, its epithelial proliferation processes produce a local predisposition to cancer, which under the influence of irritation may change to true malignancy.

On the other hand, suppose the patient comes to the physician complaining of a lump in the breast. Again the most important thing for the physician to do is to examine both breasts of the patient. Bevan[6] says that tumors of the breast are very common; they occur in about three women in 100. Of 300 women who present themselves for examination because they think they have tumors of the breast, 100 will have no tumor; 100 will have benign tumors; and 100 will have malignant tumors. The examiner, assuming that he corroborates the patient's statement, should then endeavor to form an opinion as to the nature of the lump. Is it benign, or is it malignant? A benign tumor may be a fibroma, an adenoma, an adenofibroma (or fibroadenoma), a papilloma, or a chronic cystic mastitis. However, there is no way clinically to determine whether the mass is benign or malignant with absolute certainty. The tumor must be removed and examined histologically by a pathologist skilled in tumor diagnosis. Bloodgood[7] says that when women report for examination in the early development of breast lesions, the first problem is to find the lump for which operation is indicated. The second problem is to learn to interpret the fresh frozen section of the mass when it is removed, because, if the growth is not cancer the breast can be saved and if it is cancer a radical mastectomy should be done. Levin[8] says that every tumor in the female breast must be considered malignant unless definitely proven to be benign. Harrington[9] says that all tumors of the breast occurring after puberty should be regarded as possibly malignant.

In case the pathologist reports the growth to be fibroma, adenoma, adenofibroma or papilloma, what is the likelihood of such a growth becoming carcinomatous, or of the coexistence of carcinoma and a benign tumor? Smith and Marks[11] report 201 cases of benign tumors of the breast, in which there is a good deal of interesting statistical information. Bevan[6] is of the opinion that there is little likelihood of a benign tumor degenerating into carcinoma, and Cheatle and Cutler (3, p. 487) say carcinoma originating in a fibroadenoma must be a very rare event; but on page 489 they describe such a case. Smith and Bartlett[10] in a report of seven cases of sarcoma of the breast found intracanalicular or pericanalicular adenofibroma closely associated with the malignant tumor in six. Smith and Marks[11] found sarcoma in 7 per cent of cases of periductal fibroma and carcinoma in 28.5 per cent of cases of papillary cystadenoma. In the entire series of 201 cases of benign tumors reported there was associated malignant disease in 4.9 per cent.

Bloodgood[16] contributes another important study of the whole question of the histological differentiation between benign and malignant tumors, particularly the "borderline" growths.

If, on the other hand, the growth is a papilloma and it is only partially removed we may expect local recurrences, the formation of other papillomata in the remaining parts of the breast, or the final development of carcinoma. (Cheatle and Cutler, 3, p. 157.) And Smith and Bartlett[10] say that there is frequent evidence that

papillary cystadenomata precede malignant tumors. So the whole mammary gland should be regarded with suspicion.

Cheatle and Cutler (3, p. 92) believe that the term chronic cystic mastitis should be abandoned, and they suggest as a substitute cystiphorous desquamative epithelial hyperplasia. It seems, however, as though the simpler term will continue to be used. They state that about twenty per cent of all carcinomata of the breast can be definitely considered to begin with the lesion under consideration.

There is some difference of opinion concerning the relation of cause and effect between chronic cystic mastitis (cystiphorous desquamative epithelial hyperplasia) and carcinoma. Smith and Bartlett[10] say that although chronic cystic mastitis is almost a constant finding of the breast, it cannot be shown to have an etiological relationship. Bevan[6] considers chronic cystic mastitis a senile or presenile involution change. On the other hand, Levin[8] says that a malignant tumor may be present even when both breasts present chronic cystic mastitis. Cheatle and Cutler (3, p. 133) say: "We regard the sign of local nodularity as one of great gravity, and we have always made a practice of treating a breast exhibiting this sign as one that contains carcinoma."

It would seem to the present reviewer safer for the future of the patient to look upon chronic cystic mastitis with suspicion and to remove the breast.

Concerning the relation of lactation and carcinoma of the breast it appears that women who have borne children and nursed them normally are less subject to carcinoma than those who have had no children or who have not nursed them (Cheatle and Cutler, 3, p. 253). Taylor[12] and Pikkarainen[13] are of the opinion that there is no etiological relation between the accidents of lactation and carcinoma of the breast. It would appear that women who bear children should be encouraged to nurse them normally, as one item of insurance against the future development of carcinoma.

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Medical Economics

(*Concluded from page 186*)

tion. Laboratory organizations must ever be augmented, technicians increased in number, expensive instruments of research quickly secured and small menageries maintained. Sufficient clerical help for all departments must be employed.

The nurses, too, must receive the benefit of latest scientific progress. Courses must be thorough and prolonged; science and its quest must be deeply instilled in their minds and examinations must be passed on knowledge acquired in hours taken from the direct care of the sick.

Standardizing boards put in their appearances and impose their requirements. To secure and maintain a desired rating the hospital must have surveys and check-up by municipal, state and national organizations of professional and non-professional groups.

Extra duties may require the positions of directors, superintendents and assistant superintendents, supervisors, heads of departments, chiefs and junior chiefs, and clerical help seemingly without limit.

While all such efforts for scientific discovery and development are good in themselves and in proper places may be invaluable they are expensive, and in causing too great an increase in the cost of daily maintenance they restrict the hospital in its usefulness to the sick. Private hospitals conducted on a strictly commercial basis are steadily increasing in number—there are now over seventy registered in New York City—and their hope of success depends on a high quality of professional work, stripped of unessential research activities, with essential activities furnished at the lowest practical cost. The patient willing to pay is deeply interested, while industrial corporations, organizations of employees and insurance companies working under the Workmen's Compensation Act are seeking institutions where their sick and injured will be adequately treated and the charges represent the actual cost.

Cervical Carcinoma

Despite the fact that the uterine cervix is easily accessible both to sight and touch, cancer in this location is usually in an advanced stage when first discovered. The subjective symptoms in early cervical carcinoma are vague or even absent and are not often recognized by the patient. Therefore, if cancer of the cervix is to be prevented and controlled, it will be necessary to make routine and periodic examinations of this organ.

As the majority of cervical cancer cases occur in women who have borne children, it is suggested that physicians should urge an annual or semi-annual examination of mothers to determine if there be any pathological condition of the cervix. Cancer rarely, if ever, occurs on a normal cervix. It is usually preceded by some chronic lesion and is often associated with tears sustained at childbirth.

Professor W. P. Graves, Harvard University, in a study of 500 cases of cervical cancer found that only 2 per cent of the patients had had cervical repair, while, on the other hand, among nearly 5000 women who had received this treatment he found only six that had developed cancer.

The very early stage of carcinoma of the cervix cannot be definitely diagnosed clinically. In all suspicious lesions a biopsy should be employed at once. This is a safe and easy operation and does not require an anesthetic. A biopsy by a competent pathologist offers a quick and definite diagnosis.

Statistics show that 75 per cent of early treated cases survive the five-year period while the salvage in advanced cases is comparatively small. Although the majority of cases of cervical cancer occurs near the menopause it must be borne in mind that this lesion frequently is found at a comparatively early age. There are on record at the State Institute for the Study of Malignant Diseases a number of cases in the early twenties and one case in a girl of eighteen who was married when the was fourteen and had borne two children.

In view of the frequency of cancer of the cervix and the fact that this disease takes the lives of many women at a time when they are useful to society, it is imperative that the medical profession make every possible effort to discover this disease in the early stages. Since early symptoms are so vague, much headway cannot be made unless the physician takes the initiative and advises his patients who have borne children to submit to a periodic pelvic examination in order that any pathologic lesion which may be present can be discovered, a diagnosis made and the proper treatment instituted.

It is believed that such periodic examination will prevent the development of many cases of cervical carcinoma, will lead to the discovery of many early ones and thus reduce the mortality from this disease.—*Health News.*

Undulant Fever

As long as milk and cream are used without pasteurization, cases of undulant fever will probably continue to occur. Reports indicate that a fairly large percentage of cattle have the disease, and that much of the milk in rural districts is used raw. Consumers, including people on vacation in the country, are thus exposed.—Ruth Gilbert, M.D., and Marion B. Coleman, B.S., in *N. Y. State J. M.*, Sept 1, 1931.

Contemporary Progress

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Neurology

A Serologic Study of Multiple Sclerosis

A. Weil and D. A. Cleveland (*Archives of Neurology and Psychiatry*, 27:375, Feb. 1932) report a serological study of 26 cases of multiple sclerosis. In 14 of these cases the colloidal gold test was made on the spinal fluid and was positive in 11, or 79 per cent, in 7 of which it was of the paretic type. The effect of the blood from these cases on the spinal cord of rats was tested and it was found that a larger percentage of these sera acted destructively on the cord (producing demyelinization) than the sera of normal persons. Such action could be demonstrated in sera from other diseases. No marked demyelinization of the cord was produced by any serum of multiple sclerosis in which the lipase content was less than 0.2 c.c., but on the other hand damage to the spinal cord did not parallel the amount of lipase present. Experiments with active pancreas lipase showed no destructive action on the spinal cord of rats. The evidence did not appear sufficient to warrant any definite conclusions as to the importance of the increase of lipase in the etiology of multiple sclerosis. Determination of the inorganic phosphorus of the serum in the cases of multiple sclerosis showed an average of 3.4 mg. per 100 c.c., as compared with 4 mg. in normal cases, 4.2 mg. in 21 cases of eight different diseases, and 4.4 mg. in cases of syphilis of the central nervous system; 65 per cent of the cases of multiple sclerosis showed 3.5 mg. or less inorganic phosphorus in the serum. This low content of inorganic phosphorus was contrary to expectations in a disease showing rapid breakdown of nerve substances. It is possible that increase in lipase and decrease in inorganic phosphorus are secondary manifestations of a primary lesion in some organ of the body as the liver, such as may be brought about by infectious diseases or metabolic disturbances which are known to favor the onset of multiple sclerosis. Such a lesion may eliminate a myelolytic toxin or "prepare the way" for the passing of toxic metabolic products through the hematoencephalitic barrier. On the other hand disturbances of lipase and phosphorus metabolism may be secondary to a primary disease of the central nervous system. Recent investigations have indicated that demyelinization of peripheral nerves and the central nervous system may be brought about by certain vitamin deficiencies in the diet.

Intracistern Serum Treatment of Neurosyphilis

H. R. Viets (*New England Journal of Medicine*, 206:491, March 10, 1932) reports the use of intracisternal injections of salvarsanized serum (Swift-Ellis method) in the treatment of neurosyphilis; this method has been used both at the Massachusetts General Hospital and in the author's private practice. The blood serum used is obtained from blood withdrawn fifteen minutes after an intravenous injection of neosalvarsan; and is inactivated at 56° C. for half an hour, after which it may be kept for several days. Ayer's technique of cistern puncture is employed; 20 to 35 c.c. of cerebrospinal fluid is withdrawn, and 20 c.c. of serum injected by the gravity method; the height of the serum is never more than 150 mm. above the needle, and the injection is continued for ten to fifteen minutes. The patient then lies in the dorsal position for an hour, after which he is usually allowed to go home, but directed to remain quiet for twelve hours. Treatments are given not oftener than once in two weeks. Cell count, protein test, colloidal gold and Wassermann tests are made on the spinal fluid withdrawn at each treatment. This procedure causes practically no unfavorable reaction; root pain and sphincter weakness often observed after intraspinal injections of salvarsanized serum are avoided; there is no depression of general health; the patient can continue his usual routine and be treated at the office. In most forms of neurosyphilis, the spinal fluid can be brought to normal or nearly so, and marked clinical improvement is obtained. In meningo-vascular syphilis serological and clinical improvement is often rapid. Two classes of patients with neurosyphilis do not respond to this treatment; no case of optic nerve atrophy has been prevented from progressing to blindness although some have shown serological improvement. Cases of paresis do not respond if of the true parasyphilitic type; in the early stages of paresis, the treatment may be of value, and should be tried until it is evident that there is no serological improvement. With these exceptions the author has found the results better in neurosyphilis than with other forms of treatment.

Treatment of Clonic Facial Spasm

W. Harris and A. Dickson Wright (*Lancet*, 1:657, March 26, 1932) note that in clonic facial spasm the contractions are limited to the musculature supplied by one facial nerve alone; in severe cases practically every muscle supplied by this nerve is affected. The condition is undoubtedly due to some chronic lesion or degeneration of the lower facial neuron. Treatment of clonic facial spasm has been very unsatisfactory. For the last few years the authors have used alcohol injections at the point where the two main branches of the facial nerve cross the posterior border of the mandible in front of the ear. This can be done under local novocain anesthesia with very little pain; either or both the branches of the nerve can be injected according to the musculature involved. Relief of the spasm is prompt, but usually temporary; spasms usually recur in three to six months, although in some cases relief is obtained for a year or more. In order to obtain a permanent cure, the facial nerve must be divided so as to separate it from the irritable nerve center; and in order to avoid permanent facial palsy anastomosis with the hypoglossal

nerve is done. This anastomosis has been used in the treatment of facial paralysis, and is much more certain to ensure the return of facial movements, after section of the facial nerve for clonic spasms, when the facial nerve is freshly sectioned and the facial muscles in good condition. Results in cases in which this operation has been used have been very satisfactory, the facial spasms being entirely relieved and facial movement returning at least partially. This operation, the authors believe, is entirely justified in cases in which the facial spasms are severe and a source of great annoyance and even disability to the patient.

Pain of Tumors of the Spinal Cord

W. McK. Craig (*Western Journal of Surgery,* 40:56, Feb. 1932) in a review of a large series of cases of spinal cord tumor at the Mayo Clinic finds that pain is one of the outstanding symptoms and usually the first symptom of spinal cord tumor. In a large percentage of cases, when the patient comes for examination, the symptom of pain is associated with some motor or sensory derangement that gives a clue to the true nature of the lesion. But in some cases of spinal cord tumor pain persists as the outstanding symptom for months or even years, proving resistant to conservative treatment, yet not associated with other definite neurologic symptoms. In such cases operation on the abdominal organs or in other regions of the body may be done, also without relief. In the author's series such operations had been done in 10 per cent of cases. Eleven illustrative cases from this group are reported. In most of these cases some minor pathological condition was found —as cystic ovary, small fibroid tumor, small renal calculus, etc.—but operation did not relieve the pain. A complete and careful neurologic examination and study of the type and distribution of the pain were necessary before the correct diagnosis was made. Operative removal of the spinal cord tumor was possible in all these cases and relieved the pain.

Spasmodic Torticollis

E. H. Rynearson and H. W. Woltman (*American Journal of Medical Sciences,* 183:559, April, 1932) report a follow-up study of 82 cases of spasmodic torticollis treated at the Mayo Clinic up to January 1, 1929. Forty-four of the 82 patients reported no improvement; 16 patients, or 19 per cent, reported complete disappearance of symptoms; and 20 patients, or 27 per cent, definite improvement. Fifty-seven patients had had foci of infection removed as a part of treatment; of these 29, or 51 per cent, were improved or cured; while of those who had not had foci of infection removed, only 36 per cent were improved or cured. This difference of 15 per cent is considered to be of sufficient significance to indicate that removal of foci of infection is warranted in the treatment of spasmodic torticollis.

Treatment of Narcolepsy with Ephedrine Sulphate

J. B. Doyle and L. E. Daniels (*Journal of the American Medical Association,* 98:542, Feb. 13, 1932) report a follow-up study of 67 cases of narcolepsy studied at the Mayo Clinic and not treated with ephedrine sulphate; the duration of the disease in these cases varied from one to forty years. None of these patients had recovered completely, 30 patients reported improvement, but in 14 of these the improvement was slight; 25 reported no change; 8 that they were worse; 4 patients had died.

Fifty patients with narcolepsy have been treated with ephedrine sulphate; of these 20 have been completely relieved and 17 have been markedly improved; the improvement in these cases has persisted from two to nine months. Eight patients have been moderately improved; 2 were temporarily improved, but no longer show any response to treatment, and in 2 cases no improvement was obtained. The use of ephedrine sulphate for narcolepsy was begun in the Clinic in September, 1930; at that time the use of the drug in narcolepsy had been reported in France by Janota and Skala, but the authors did not know of this report at the time that they began the use of the drug in the treatment of this condition.

Physical Therapy

Roentgen-Ray Treatment of Peptic Ulcer

E. S. Emery, Jr. (*New England Journal of Medicine,* 206:717, Apr. 7, 1932), reports 8 cases of peptic ulcer treated with Roentgen-rays. In 6 patients the ulcer was jejunal secondary to gastrojejunostomy, and in 2 cases duodenal. In most cases ¾ of an erythema dose was given. In all cases there was a definite drop in the gastric acidity preceded by a temporary increase. In 5 cases the pain was completely relieved for varying periods of time; in these cases the relation between the pain and the amount of free acid was striking. The remission in these cases lasted from six weeks to several months, and in all the general condition of the patient was definitely improved; in 3 cases there was definite improvement in the local condition as shown by roentgenological examination. In 2 cases pain was not relieved, and in one of these a perforation occurred; there was no evidence that the perforation was due in any way to the treatment. Not more than two courses of treatment were given in any case. From the results obtained the author concludes that the *x*-rays may be a useful adjunct to treatment in selected cases of peptic ulcer not responding to other treatment.

Roentgenotherapy of the Spinal Region in Dermatology

H. R. Foerster (*Archives of Dermatology and Syphilology,* 25:256, Feb. 1932) reports the use of Gouin's method of Roengen-ray irradiation of spinal sympathetic fields in certain dermatological conditions. With this method two fields are used, the interscapular area with the central rays directed over the fourth dorsal vertebra; and the dorsolumbar region with the rays centered at the twelfth dorsal vertebra. Each field measured approximately 10 x 20 cm. One half an erythema dose was given with a 3 mm. aluminum filter, 124 kv., 5 ma. current and target-skin distance of 12 inches. As a rule single treatments were given, but some were repeated at intervals of three weeks or more. This method was found to be most satisfactory for treating acute and subacute generalized lichen planus; and of considerable value in chronic generalized cases of this disease. Of 33 cases of generalized lichen planus, 25 acute or subacute and 8 chronic, 14 recovered promptly (12 acute and 2 chronic), 4 were definitely improved. 8 (5 acute and 3 chronic) were not benefited, and 6 did not report following the first treatment. In dermatitis herpetiformis, very definite improvement, and in some cases complete cure, may be obtained, but repeated treatments are required. Definite improvement was also obtained in some cases of scleroderma. In herpes zoster, this method of spinal irradiation relieved post-eruptive neuralgia and definitely shortened the course and intensity of the eruption.

Roentgen Therapy in Infantile Paralysis

L. T. Le Wald (*Archives of Physical Therapy,*

13:138, March, 1932) discusses the use of the Roentgen-rays in the treatment of infantile paralysis as first advocated by Bordier. He notes that there is considerable difference of opinion as to the value of this method, but his own conclusion is that because of the known effect of the *x*-ray on inflammatory processes and its stimulating effect on tissue cells, it "promises definite amelioration and improvement of certain symptoms" and will be a valuable adjuvant in the treatment of poliomyelitis. No ill effects of its use have been reported.

Ultraviolet Orificial Irradiation

O. B. Nugent (*Archives Physical Therapy*, 13:82, Feb. 1932) reports the use of the cold quartz ultraviolet orificial tube in treatment of diseases of the eye, ear, mouth, nose and throat. The apparatus is light in weight and the applicators as easy to handle as the ordinary cotton applicators. With his apparatus the sourse of the emanation and the part to be treated are brought into close proximity and the fullest intensity of the ultraviolet ray is delivered to the tissues. The duration of treatment is from twenty seconds to three minutes, usually one-half to one minute. During the last five months, 1,028 patients have been treated at the Chicago Eye, Ear, Nose and Throat Hospital with the cold quartz orificial tube. This includes 432 cases of diseases of the nose, 380 cases of diseases of the ear, 101 cases of diseases of the eye (exclusive of corneal ulcers), 101 cases of diseases of the throat (including the larynx) and 14 cases of diseases of the mouth. In all but 8 of these cases, there was definite improvement in the condition treated; in some cases patients did not return for further treatment; but in all those cases that were given a full course of treatment and were followed up results were "very gratifying." For corneal ulcers the Birch-Hirschfeld radiant lamp was used, but for other eye infections the cold quartz orificial tube was used. This method also proved most valuable for ulcers of the ear drum and external auditory canal, Vincent's angina and stomatitis, and ulcerations of the mouth and throat.

Infra-Red Rays in Pylorospasm

C. E. Brush (*Physical Therapeutics*, 50:41, Feb. 1932) reports 5 cases of pylorospasm in infants and one in an adult treated by the infra-red rays. In 3 of the 5 infants a diagnosis of congenital hypertrophic pyloric stenosis had been made and operation recommended before treatment was begun. In the infants treatment with the infra-red rays was given at every feeding until the tendency to pyloric spasticity was overcome. The light treatment was started as soon as the infant was given the bottle and continued for fifteen minutes; treatment was given over the abdomen, the nurse or mother keeping her hand on the chest to serve as a guide to the intensity of the heat. Usually one treatment a day was given to the back instead of the abdomen. Under this treatment infants soon were relaxed and quiet during feeding; vomiting was not entirely relieved immediately, but was controlled within a few weeks. In all the infants treated gastric peristalsis and digestion became normal; two of them have been well for a year. In the adult case, a women twenty-nine years of age, there were severe attacks of pain occurring after eating relieved by vomiting without nausea. The gall-bladder containing numerous calculi had been removed without relieving the attacks. Fluoroscopic examination showed the pylorus spastic. Treatment with the infra-red rays over the right upper abdominal region for twenty minutes after each meal was given for two months; and since that time there has been no recurrence of the attack. On the basis of these results, the author advocates the trial of the infra-red rays in pylorospasm; if the treatment fails, surgery may still be used.

Diathermy Treatment in Liver Disease

G. Goldgruber (*Klinische Wochenschrift*, 11:286, Feb. 13, 1932) reports the use of diathermy in the treatment of various types of liver disease in the past two and a half years. Two large plate electrodes 12 x 18 cm. are employed, placed over the front and the back of the body in the liver region; two hours treatment is given with 1-2.5 amperes, and repeated daily or every other day. This method of treatment has proved most useful in diseases of the liver parenchyma which do not yield to other methods of treatment—such as catarrhal icterus, salvarsan icterus, chronic hepatitis, and the milder degrees of cirrhosis. In these conditions diathermy improves the local circulation, produces absorption of inflammatory exudates, and increases the secretion and excretion. In all cases the changes in the bile have been studied by means of the duodenal tube. It has been found that prior to treatment the bile was scanty and light colored, but after one or more treatments it was much increased in amount and dark colored. It was also noted that the urine became free from bilirubin after a couple of treatments, and still later became free from urobilin and contained urobilinogen in only normal amounts. Of 18 cases of icterus and hepatitis treated with diathermy, one case of cirrhosis failed to improve; one case of syphilitic hepatitis that showed rapid improvement had begun to improve prior to the use of diathermy, so that the effect of the treatment *per se* could not be certainly determined. In all other cases diathermy effected a definite cure.

Static Electricity

C. R. Brooke (*Physical Therapeutics*, 50:1, Jan. 1932) has used several static modalities in the treatment of a large number of cases in one of the government physical therapy departments. He finds that the static current produces alternate contraction and relaxation effects that cannot be duplicated in rhythm, force and effect by any other electric current. The static modalities in their various uses relieve localized congestion, infiltration, exudation and muscle spasm. The modalities used include: The electrostatic bath, the mildest form of static treatment, which has a soothing effect, is employed in neurasthenia, insomnia, mild neuroses, and certain toxemias of gastrointestinal origin. The static head breeze affects cellular metabolism chiefly through the central nervous system, and is used in nervous fatigue, insomnia and certain types of migraine. The indirect sparks and spray soften and disintegrate local deep seated infiltrations; the static sparks relax muscle spasm and relieve neuromuscular congestion and infiltration. The brush discharge or blue pencil effluve reduces swelling and relieves pain following contusions and can be used for the most delicate structures of the body. The static or Morton wave is the most valuable means of producing rhythmical muscular and cellular exercise and restores normal tone and function to tissues and organs; it stimulates the vital forces of the entire body as well as the part under treatment. The static vacuum tube is of value in inflammatory conditions with excessive congestion. The static induced current is used for the treatment of muscular atrophy after fractures and dislocations. Among the conditions for which the static wave has proved of special value are neuritis, Bell's palsy, and hepatic stasis. In Bell's palsy and hepatic stasis diathermy is used prior to the static wave.

Public Health Industrial Medicine and Social Hygiene

The Human Carrier

J. L. Jones (*Southern Medical Journal*, 25:416, April, 1932) notes that it is generally accepted that carriers play an important rôle in spreading infection, but their relative importance compared with other modes of transmission cannot be definitely stated, and undoubtedly varies in various diseases. The rôle of carriers explains many "mysterious facts" in the epidemiology of disease; infections are kept alive in these carriers who bridge over the interval between cases and outbreaks. The sudden appearance and peculiar distribution of sporadic cases, and in some instances the prolongation of epidemics, may be explained on this basis. Typhoid fever was among the first diseases in which the importance of the carrier was officially recognized by public authorities; and at present there is probably greater effort made to control typhoid carriers than any other type. No two states are handling this problem exactly alike. In the author's state, Kentucky, all milk handlers and in some counties all food handlers are required to submit specimens of feces and urine once each year for examination. If bacilli are found in the first specimens, the individual is immediately withdrawn from the work of handling food or food containers until ten additional specimens collected under supervision have been examined. If findings are positive in one or more of these ten examinations, the individual is permanently withdrawn from the handling of food; if findings in all ten examinations are negative, the individual is allowed to continue in the work of handling food under supervision and required to submit specimens of feces and urine every three months. In addition physicians are required to have repeated examinations of feces and urine made from all convalescents from typhoid, and to require repeated negative cultures before discharging the patient from supervision. This is a usual requirement in the health department regulations of all states. In the state of Kentucky also, the detection and control of scarlet fever carriers has been carried out on a wider scale than in other states. In epidemics of scarlet fever, throat cultures have been made from all contacts, and from 25 to 50 per cent have yielded positive hemolytic streptococci carriers. Mild "missed" cases and carriers so detected are isolated, and both are released on the basis of negative cultures, cultures being made weekly. As a rule during an epidemic of scarlet fever, no test for specificity of the hemolytic streptococci isolated from the throats of contacts is necessary. But such a test on the basis of specific toxin production may be necessary, as when there is doubt in regard to diagnosis between scarlet fever and septic sore throat, or in the case of persistent carriers, *i. e.*, where the carrier state persists more than two or three weeks.

Case Fatality of Communicable Diseases

H. B. Wood (*Journal of Preventive Medicine*, 6:87, March, 1932) notes that the true case-fatality ratio of any disease is the proportion of deaths that actually occur in a known number of cases. True case-fatality ratios cannot be determined from the usual official statistical reports which give the number of reported cases and the number of deaths from recognized causes. The case-fatality ratios obtained from such reports indicate the completeness of reporting and the virulence of the disease rather than the true case-fatality. From a study of the case-fatality ratios of various communicable diseases as indicated by the public health reports of the United States and of the Pennsylvania Health Department, the author concludes that the following case-fatality ratios are approximately correct: Diphtheria 15 to 19 cases to 1 death; measles 500 to 1; scarlet fever 100 to 1; typhoid fever, 8 to 12 cases to 1 death; whooping cough 125 to 150 cases to 1 death. If any state's ratio of reported cases to recorded deaths falls much below these figures, it is an indication that the reporting of communicable diseases is incomplete in that state and that there is therefore incomplete control and quarantine of such diseases.

Control of Silicosis in Industry

L. G. Irvine (*British Medical Journal*, 1:693, April 16, 1932) describes the methods used for the control of silicosis in the gold mines of South Africa. In this respect from the engineering point of view, the provision for ample ventilation in mines is most important. In addition hand drilling has been generally superseded by machine drilling and since 1926 only machine drills having an axial water feed have been permitted. Dust determinations in mines are made both by the mine owners and by government inspectors. It has been found that by the use of proper ventilation and water drills there has been a great reduction in the quantity of dust by weight in the mine air; and "visible dust underground is now as rare as it once was common." The medical measures for prevention and detection of silicosis and tuberculosis among miners in South Africa are carried out by a government bureau, the Miners' Phthisis Medical Bureau. This includes: An initial examination of all persons entering the industry, with a view to excluding from underground work those that have tuberculosis or whose respiratory or general physical condition renders them unfit for such work. Periodical examinations of all working miners to detect any signs of silicosis or tuberculosis; and examination of all miners or ex-miners who claim compensation for silicosis or tuberculosis. Under the influence of these combined engineering and medical measures, the attack rates of silicosis at each year of service have undergone a marked reduction since 1918. At the same time conditions of work have become stabilized, so that more miners remain at work for long periods, having therefore a greater liability to contract silicosis. These two influences tend to counteract each other, but in the last three years there has been a definite diminution in the actual number of cases of silicosis annually in spite of the larger number of miners who have been in the mines for many years.

Industrial Eye Injuries

J. B. Stanford (*New Orleans M. & S. J.*, 84:782, Apr., 1932) notes that about 10 per cent of blindness in the United States is the result of industrial accidents, and approximately 10 per cent of non-fatal industrial accidents are eye injuries. The most common of industrial eye injuries is the lodgment of small foreign bodies in the eye, especially on the cornea; these may not be removed promptly, or may be removed by crude methods in the shop causing additional injury to the eye. Abrasions and contusions of the eye are also common in industry, and these may be complicated by infection. Perforating wounds of the eyeball are also common and may be complicated by the presence of intra-ocular foreign bodies or by infection. The danger of infection is in direct ratio to the time the wound is left open. If an intra-ocular foreign body is present it

must be removed before the wound is closed. Burns of the eye in industry may be caused by hot metal, electric flashes, ultraviolet, and chemicals. In the author's experience the most troublesome of these eye burns are those caused by molten metal. Proper lighting and safety devices can prevent at least half of the industrial eye injuries. When injuries occur, although seemingly slight, they should be promptly treated by an ophthalmologist to prevent permanent injury and loss of vision as far as possible.

Syphilis From the Epidemiologist's Point of View

T. Parran, Jr. (*American Journal of Public Health, 22*:141, Feb., 1932) discusses the epidemiology of syphilis on the basis of studies made by and in cooperation with the U. S. Public Health Service, by the one-day census method in a population totaling 25,822,137 and typical of the population of the country as a whole. The prevalence rate of syphilis was found to be 4.26 per 1,000 inhabitants, the rates varying from 17 in one city of less than 60,000 population to less than 1 per 1,000 in certain rural areas. In certain special communities in which the annual attack rates were studied, it was found that for every 100 cases constantly under treatment there were 173 cases diagnosed for the first time during the preceding year, of which 83 were early cases. Applying this same ratio to the cases under treatment in the entire population studied, it is estimated that in the United States there are 871,000 cases of syphilis diagnosed for the first time each year and of these 408,000 are early syphilis. There is no conclusive evidence that syphilis is declining in the United States; the best evidence available from resurveys shows a slight increase of cases under treatment during the last four years. Yet syphilis appears to be controllable by public health methods; infection can be traced to a comparatively few determinable sources, a large proportion of which are untreated and inadequately treated cases. These can be made non-infectious by treatment; and most cases have a limited period of infectivity.

Syphilis and Gonorrhea in Up-State New York

A. Pfeiffer and H. W. Cummings (*American Journal of Hygiene,* 15:549, March, 1932) report a study of syphilis and gonorrhea in up-state New York, based on a questionnaire answered by 5,742 physicians, clinics, hospitals and state institutions for 1930 and compared with a similar inquiry in 1927. There was a striking general similarity in the trend of syphilis and gonorrhea in the two years, with a slight increase in cases of syphilis reported in 1930. Based on the new cases reported for one month, the estimated annual attack rate for syphilis is 4.4, males 5.6, females 3.2; and for gonorrhea 7.4, males 11.8, females 3.1. Approximately 87 per cent. of the infected persons go to private physicians first for treatment; only 42 per cent. of the syphilis cases go for treatment within a year and 70 per cent. of the gonorrhea cases within three months after infection. A larger percentage of males than of females seek treatment in the early or acute stages of the disease. Of the physicians giving an opinion in regard to the trend of syphilis and gonorrhea, 47 per cent. believed they were decreasing, 34 per cent. that there was no change, and 20 per cent. that they were increasing. The chief reasons for decreases were stated to be education, prophylaxis, early and thorough treatment and free clinics for venereal disease.

Ophthalmology

The Anterior Vitreous

D. B. Kirby (*Archives of Ophthalmology, 7*:241, February, 1932) has found that examination of the anterior vitreous with polarized light shows that there is no structureless membrane in or around it. Ultramicroscopic examination indicates that the vitreous is a gel without any real fibrous structure. The fibrillar structures or "curtains" that are seen in the normal vitreous represent condensation layers. The most anterior of these represents the so-called hyaloid and is found directly back of the posterior lens capsule, separated from it only by a capillary space. The retrolental dark space has been shown to contain primary vitreous by demonstrating that it is the anterior portion of the canal of Cloquet. Liquefaction of the vitreous is a lysis of the colloidal gel; the normal appearance is lost, and a number of formations are observed that probably represent aggregation of the ultramicroscopic fibrils into dots, nodes and fibers of higher refractive index, suspended in a fluid of varying viscosity. Particulate bodies in the retrolental space may always be considered abnormal; cells and debris may be found in the retrolental space in nearly every case of iritis and cyclitis. In every case of detachment of the retina with tear and in cases in which tear was suspected but not seen, the author found reddish brown, lusterful pigment granules in the retrolental space exfoliated from the pigment epithelium of the area of the tear. After operations on the lens in which the posterior capsulozonular structures are left intact, conditions in the retrolental space are unchanged. After uncomplicated intracapsular extraction of the lens, a delicate condensation layer of so-called hyaloid can be observed limiting the anterior vitreous and the area corresponding to the retrolental space. In elderly persons partial liquefaction of the vitreous is common, and this alters the normal appearance after cataract operations.

Retinal Detachment in Relation to Internal Medicine

C. A. Clapp (*Annals of Internal Medicine,* 5:1313, April, 1932) classifies detachments of the retina from the etiological standpoint as follows: 1. Those due to trauma. 2. Those in which the retina is pulled away from its attachment by bands of connective tissue in the vitreous. 3. Those in which the retina is pushed from its bed either by a tumor or growth of the choroid or because of an extensive exudate. 4. Those of unknown etiology—the idiopathic group. The cases due to trauma usually show marked improvement and often entirely subside under rest. In group 2 treatment is almost always disappointing. It is group 3 that is of special interest to the internist as massive exudate from the choroid causing retinal detachment occurs in the acute toxemia of pregnancy or in acute nephritis not associated with pregnancy. The retinal detachments present much the same appearance in these two conditions and show a tendency to change rapidly. If the underlying condition is relieved by treatment, the retinal detachment subsides and the retina becomes re-attached. The author's own experience has been, however, that in acute nephritis not associated with pregnancy, the development of retinal detachment indicates a serious and usually fatal prognosis. If this type of retinal detachment is due to tuberculoma of the choroid, and the tuberculin skin test is positive, tuberculin therapy sometimes gives good results, if the pathological process is not too far advanced. In the idiopathic type of retinal detachment, the most important advance in treatment has been Gonin's method of cautery treatment to close the rent in the retina; Gonin claims 60 per cent. of cures by this method. The author's experience and that of other American ophthalmologists has not been quite as favor-

able, but he considers it the best method of treatment for this condition.

Inorganic Constituents of Normal and Cataractous Lenses

G. Mackay and his associates at the Edinburgh Royal Infirmary (*British Journal of Ophthalmology*, 16:193, April, 1932) report a study of the dry weight, weight of ash and inorganic constituents in 18 normal and 27 cataractous lenses. The cataractous lenses were definitely smaller than the normal lenses, their dry weight varying from 30 to 50.6 mg., as compared with normal 53.7 to 67.5 mg. The weight of the ash of the cataractous lenses averaged only slightly less than that of the normal lenses, so that the percentage of ash in the cataractous lenses was greater than normal. The inorganic constituents of the normal lens were found to differ from those of normal aqueous humor (and blood plasma). In the normal lens the potassium was greatly in excess of the sodium; the calcium was very low; and chlorine less than equivalent to sodium. In the aqueous humor, the sodium was in excess of the potassium; the calcium about 5 mg. per cent., the chlorine about equivalent to sodium. In the cataractous lenses there was a tendency to take on a composition similar to that of the aqueous humor and the blood plasma. The sodium predominated over the potassium, although the latter remained higher than in blood plasma; the chloride was increased; but the most notable change was the marked increase in calcium both absolutely and relatively to the other ions. These changes were progressive as the cataract matured. There was no evidence that the calcium was the first constituent to alter, but the much greater increase of calcium as compared with that of the other inorganic ions during the development of cataract indicates some special connection with the production of opacity.

Ophthalmological Importance of Focal Infective Prostatitis

P. S. Pelouze (*Archives of Ophthalmology*, 7:372, March, 1932) in his practice as a urologist has found eye symptoms of common occurrence in cases of chronic infective prostatitis. There have been a few cases of uveitis and choroiditis, a large number of cases of iritis, and a still larger number of cases of ulcerative keratitis. In some cases the prostate has been the only focus of infection; more commonly the eye condition is kept up by the prostatic infection after the removal of the foci in the teeth, tonsils and sinuses. Such prostatic infections are usually not gonorrheal, but secondary to tonsillar or dental infection. If an increase in ocular symptoms follows the first digital manipulation of the prostate gland, this is evidence that the prostatic infection is a factor in the causation of the eye lesion; this increase in ocular symptoms is analogous to a vaccine reaction. Treatment of the prostatic infection must be carried out with care and with due regard to the ocular tolerance to toxin. Prostatic treatment should be given so as to cause only slight or no ocular reaction; it should not be given within three days of the subsidence of a reaction caused by the previous treatment. If the eye symptoms improve under prostatic treatment and then remain stationary, there is probably a recurrent tonsillar or dental infection, or some other focus of infection. If the eye condition becomes worse as a result of even the gentlest prostatic massage, it is evident that the toxin threshold is so low that the prostatic treatments must be stopped until the eye condition becomes stationary or improves.

Avertin as an Anesthetic in Eye Surgery

F. A. Davis (*American Journal of Ophthalmology*, 15:208, March, 1932) reports the use of avertin (tribromethanol) given per rectum as an anesthetic in 135 operations on the eye. The usual dose was 0.1 gm. per kg. body weight in a 3 per cent. solution in normal saline. The patient usually falls into a deep natural sleep in five to fifteen minutes and is ready for operation in twenty minutes. For eye work a few drops of cocaine are instilled locally; and in most of the author's cases (over 70 per cent.) no further anesthesia was required; nitrous oxide was used in some cases. The patient was usually quiet and free from nausea in the post-operative period. With avertin anesthesia, the eye is quiet, the conjunctiva pale, and bleeding reduced; the extraocular muscles are relaxed. The intraocular tension is reduced, often quite considerably; this fall in tension occurs in eyes with normal tension as well as in those with increased tension. Avertin proved of special value for operations on acute and chronic glaucoma with high tension, enucleations, lid operations, and complicated cataract in which loss of vitreous was minimized. One of the greatest advantages of avertin in eye surgery is the elimination of the element of haste, especially in cataract operations.

Treatment of Tabetic Optic Nerve Atrophy

C. Abadie (*Bulletin de l'Académie de médecine*, 107:439, March 22, 1932) finds that the optic nerve atrophy in tabes is due to progressive contraction of the central retinal artery, which is caused by syphilitic involvement of the ciliospinal nerve center from which the sympathetic fibers arise that regulate both the contraction and dilation of the pupil and the contraction and dilation of the retinal artery. Abadie has, therefore, treated tabetic atrophy by the use of atropin to overcome the arterial contraction and intravenous injections of mercury as a specific treatment of the syphilitic involvement of the nerve center. Every other day he gives a subcutaneous injection of atropin (2 mg.) and an intravenous mercurial injection. In all the cases so treated not only has the progress of the optic nerve atrophy been arrested, but there has been some improvement in vision, the degree of improvement depending upon the stage of the lesion when treatment was instituted. Improvement is not noted immediately, so that treatment must be continued for some time.

Euthanasia

Last October we reported Dr. C. Killick Millard's presidential address to the Society of Medical Officers of Health, in which he pleaded for the legalization of euthanasia. He has now reprinted his paper in pamphlet form, together with the text of his proposed Bill and an appendix containing expressions of opinion by doctors, clergymen, and others. Sir W. Arbuthnot Lane, in a foreword, strongly supports Dr. Millard's views, and says he has met with widespread approval of them in the audiences, chiefly composed of working people, whom he has addressed. He points out, however, that it will probably be difficult to pass the Bill rapidly through the House of Commons, and the *Spectator* in an editorial article last autumn probably came even nearer the truth when it said that the Bill stood not the smallest chance of passage into law at present. Nevertheless, the drafting of a serious Bill is a good method of stimulating public discussion in a subject as important as this. Dr. Millard produces a considerable number of thoughtful opinions in favor of the legalization of euthanasia subject to adequate safeguard, but only gives, as an example of adverse criticism, four extracts which on the face of them would not be likely to command much respect from reasonable minds. Surely a movement as novel and daring as this has evoked as weighty criticism as it has approbation? If Dr. Millard has received any expressions of adverse opinion at all comparable with the favorable ones he quotes, it would probably help his cause if he were to publish them.—*Lancet.*

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NEW YORK, JUNE, 1932

Romaine Pierson

December 2, 1867 --- April 27, 1932

A man more precious than fine gold; a man even more precious than the golden wedge of Ophir.

—Isaiah 13: 12.

How Depression Benefits Childhood

Dr. Ray Lyman Wilbur, Secretary of the Interior, from the workings of whose great mind not even such matters as the Coffey-Humber cancer patent are excluded, has acquired special renown by propounding the brilliant thesis that economic depression benefits childhood. Speaking before the recent national conference of social workers in Philadelphia, he said:

> Personally and speaking broadly, I think that unless we descend to a level far beyond anything that we at present have known our children are apt to profit rather than suffer from what is going on. We must set up the neglect of prosperity against the care of adversity. With prosperity many parents unload the responsibilities for their children on to others. With adversity the home takes its more normal place. There is no substitute for intelligent parental care exercised throughout the day, at meal times, and in controlling proper sleeping conditions at night. More important still, there is no substitute for the parent in the development of the spiritual, moral and mental makeup of the child.

Perhaps it is the duty of all those who are truly solicitous for childhood to see to it that a President is elected who can be depended upon to maintain or even deepen to a reasonable degree the present depression, which, it seems, has done so much to benefit childhood.

Announcing a Department of Medical Economics

The economic phases of the practice of medicine are commanding, nowadays, the most serious consideration. In view of their importance, it gives the MEDICAL TIMES AND LONG ISLAND MEDICAL JOURNAL much satisfaction to announce that the editorship of a new Department, that of Medical Economics, has been assumed by Dr. Thomas A. McGolrick, distinguished clinician, hospital director, medical sociologist, and Chairman of the Medical Economics Committee of the Medical Society of the County of Kings, Brooklyn. This issue introduces the new Department.

The Control of Puerperal Morbidity

Logan Clendening, in characterizing a recent work on the vital rôle of medicine in the history of civilization, said, "There is nothing in this volume which will stir doubt or soul-searching. . . . It is a forthright call to believe in the Red Cross, Secretary Ray Lyman Wilbur, who spake by the prophets, to acknowledge one asepsis, the remission of gin, and life extension everlasting. Amen."

The acknowledgment of "one asepsis" inevitably recalls our obstetric ritual, with all its swabbings of the vulvovaginal domain, half the time forgetting what should be done long before the time of labor to fortify our patients' resistance to post-partum morbidity.

This post-partum morbidity is exercising the souls of all our conscientious obstetricians, yet most of them are still thinking and acting in terms of the "one asepsis." They are living in a new world of nutrition and do not know it.

What is the good of the swabbing ritual if their patients go to labor on a diet that for months has been deficient in the anti-infective vitamin A?

Economic conditions being what they are it behooves us to give special thought in these days to flagrant deficiencies in the dietary of obstetric patients, for the danger of lowered resistance and infection is greater now than in normal times.

E. Mellanby, H. N. Green, D. Pindar and G. Davis (*Brit. M. J.* 2:595-598, Oct. 3, 1931) have pointed the way to the marked reduction in puerperal morbidity that is attainable through proper diet in their article on "Diet as Prophylactic Agent against Puerperal Sepsis, with Special Reference to Vitamin A as Anti-infective Agent." They studied the effects upon puerperal morbidity of feeding a diet containing adequate amounts of vitamin A to 275 women, for about a month before labor, an alternate group of 275 women not so treated being studied as controls.

The results registered a morbidity of 1.1 per cent for the vitamin-treated cases and of 4.7 for the control cases.

In view of the availability at the present time of products greatly superior in vitamin A strength to cod-liver oil, upon which, with butter, Mellanby and his colleagues largely depended in their work, it would seem that we are in a better strategic position than he to carry this demonstration a step forward.

That American obstetricians alert to this opportunity will seize it is not to be doubted for a moment. Nor will general practitioners be slow in making this advance available to their patients everywhere without delay. Large-scale demonstrations in prenatal clinics and hospitals are to be expected as a matter of course.

We shall not be so obstetrically blind as the generation which repudiated Holmes and Semmelweis. The present issue is as vital as the one which confronted them.

Codeine

There are many indefinite aches and pains in senile patients, the pathology of which is not quite clear. When one considers the findings at autopsies it is not surprising that the various changes in the senile organism might cause many discomforts. Old people do not require much sleep, as a rule; but when the rest is disturbed the wear and tear on the human body is rather hard. The pains may be in the arms and legs, due to arthritis. Many pains in the shoulders are due to gallstones; backache and pains in the thighs may be due to prostatic hypertrophy. Neuralgias, myalgias, neuritis, chronic duodenal ulcer, renal calculi and hernias are other conditions in old age which contribute to discomfort.

Codeine is a blessing to these patients. A quarter or half grain at bedtime will prevent some of this wear and tear. Many patients are relieved of the pain from chronic duodenal ulcers by an eighth grain before meals. The only harm from codeine is its constipating effect; it is not habit-forming and patients take it for years without ever increasing the dosage. It does very little for acute pain if at all severe, but it works very well for those indefinite aches and pains we all have to relieve sometimes.—M. W. T.

A Supreme Bore

> And in his brain . . . he hath strange places cramm'd with observation, the which he vents in mangled forms.
> —*As You Like It.*

Threatening to rival the elder Dumas and the late Edgar Wallace in the volume if not the quality of his output, our chief devil, T. Swann Harding, thwacks us again for the thousandth (?) time with an article in the May *Scientific Monthly* in which he attempts to show the high eminence of veterinary medicine as compared with the human art and science. He is a whole industry in himself, a very factory of polemics, but the gears are meshing quite as badly as usual and strange gasses fill the air. He gets himself into a serious difficulty near the end of his precious article, after laying about with bladder and custard pies in his usual style, by describing how the Bureau of Animal Industry throttled the 1929 epidemic in California of foot-and-mouth disease in two months *by simply slaughtering and burying all infected and exposed hogs and cattle*, and naively insisting that eradication of many diseases of human beings would be fairly easy "if physicians but conscientiously did their duty."

"Veterinary medicine has been so efficiently organized to combat animal diseases that the result has been the complete eradication of some diseases and very serious inroads upon the disastrous effects of others; furthermore, that within a very short period of time, the status of the veterinary profession has been raised and effective means have been devised to use without delay the latest findings of an organized body of scientists of various sorts, engaged in fundamental research, in a practical way, to fight disease among animals. In short, a sick or indisposed animal is regarded as an acute social problem about which the community, through . . . governmental agencies, is prepared to take action."

Our would-be scourge calls into question the intelligence of the *Scientific Monthly's* editor and readers by informing them that "It is, of course, very much easier to eradicate animal diseases than to wipe out human ailments because, if you can't do anything else, you can kill a few hundred patients."

We wonder just why the *Scientific Monthly* published another consignment of interminable trash from such an intolerable bore? This angle of the case is inscrutable to us.

The Modern World's Threat to Medicine

Everett Dean Martin, in his *Conflict of the Individual and the Mass in the Modern World* (Henry Holt and Company, 1932), sums up the State in this age as follows:

> I have called the modern State a new Church; in a sense I think I have shown that it is. But I fear that such a comparison is very unfair to the Medieval Church; for what a church this new one is: a soulless mechanism to which men look for redemption of the world and salvation from themselves; its creed the teachings of Rousseau; its priesthood the professional politician; its acolyte the policeman; its offering the income tax; its litany the party campaign; its communion the exercise of the vote; its sacrament the baptism of war; its Heaven business prosperity passed around; its dreaded Hell its own logical end in the dictatorship of the Proletariat; and its God the self-idolatry of "the People" as mass.

Let us hope that the exemplar of its medicine will not be a panel doctor under compulsory health insurance, now so brazenly advocated by certain medical "leaders" (God help us!) who are neither practitioners nor physicians. Paradoxically, they seem to speak for a profession which is deeply nauseated by their utterances. What are the hidden forces behind such a vicious situation? What will Mr. Martin be enabled to say of us in another five or ten years?

The Aspirin Age

Perhaps the biological deterioration that Conklin of Princeton University discerns in modern races has more than a little to do with disturbing social phenomena, in other words, with the "cockeyed" world.

Weakening of stamina and fortitude in the present generation is evidenced in part, from the medical viewpoint, by the fantastic abuse of drugs such as opium, morphine, cocaine, novocaine, alcohol, scopolamine, chloroform, ether, chloral, veronal, the bromides, coffee, tea, tobacco, kola and aspirin. People are so "soft" that even a slight headache, to which our forebears would probably have paid no attention, can not be borne without recourse to an analgesic of some sort.

We are even tempted to suggest that the stresses and strains of the general practice of medicine may have something to do with the trends of the day in our professional schools. Just as the educational machine in general is gauged to the limited capacity of the student body, so the medical schools are obliged to turn out many men who by no stretch of the imagination could be conceived of as general practitioners capable of carrying the physical burdens easily borne by the old type of practitioner. Behind the scorn of that marvelous drudge is concealed a fear and an inferiority complex that are real indeed. Work is all very well, says John Cowper Powys, but it can be overdone. Therein lies the psychology of the man for whom no medical predicaments exist between 5 P. M. and 9 A. M. He is a pretty soft contrast to the man who once met continual, arduous strain with relish and zest and genuine capacity. We who knew him at first hand have a vast admiration for all his points. He was an athlete indeed, who would not know what to make of the present-day lilies of the field, beside whose beauties Solomon in all his glory was coarsely arrayed.

Take these things into some account when figuring on the likelihood of a revival of the general practitioner's qualities in a breed fitted to meet adequately the pressing needs of the new day.

Paradoxes in Medicine

The paradoxical in medicine is encountered at every turn. Why do we give such unstinted allegiance to doctrines that are not so "hot" while steadfastly averting our faces from demonstrable truths such as that one which shows what a large factor arterial peristalsis is in maintaining the circulation? Yet without taking this palpable fact into account we stupidly try to explain how obviously inadequate hearts keep the blood flowing.

It is paradoxical that we have not discerned the obvious relation of mouth breathing to Riggs's disease. The drying effect of such breathing, prolonged for hours at night, deprives the gums of protective fluids. What wonder that "four out of five have it." Obviously, this factor also operates in tartar formation.

It is paradoxical that all do not realize the reasons why cervical cancer and abortion increase in frequency as contraception gains ground.

As to cases, there is, for example, the patient who displays major symptoms pertaining to the central nervous system after apparently minor head injuries.

Then there is the elderly patient with hard nodules and pain in the liver who is progressively losing weight and strength, to whose family we confide a fatal prognosis, and who suddenly gets well and utterly confounds us.

But it is the paradoxical things that help to make medicine the most interesting of pursuits.

Magic Old and New

Old beliefs in the magical properties of products derived from horrid creatures and things find confirmation of a sort today.

Thus Chen and Jensen, working with toads, have isolated not only epinephrine but the so-called bufogins, or bufotoxins, exhibiting digitalis-like effects, while seven varieties of bufotenines, which raise the blood pressure in animals and stimulate the heart, have been differentiated by them.

Shakespeare knew his toad. The first thing he makes the First Witch throw into the "hell-broth" in Act IV, Scene I, of Macbeth, is a toad:

> Round about the caldron go;
> In the poison'd entrails throw.—
> Toad, that under coldest stone,
> Days and nights hast thirty-one
> Swelter'd venom sleeping got,
> Boil thou first i' the charmed pot!

And we shouldn't be surprised if it turned out that Shakespeare's lines were prophetic of the very process invoked by the modern witches of research in elaborating their strange but useful products.

Miscellany

COST OF MEDICAL CARE

Figures are set up to show that a fairly large percentage of people in a certain community did not receive medical care in a certain period of time. These statements of fact are interpreted to mean that the machinery, or mechanism, by which medical services are delivered to people is at fault. Vital facts pertaining to the whole matter are left completely out of the picture. For example, the report does not show that services were sought and not obtainable. The report shows simply that services were not delivered. They leave out of consideration the fact that a fairly large number of people will not avail themselves of free medical and hospital services when available, nor do they take into account the fact that a fair number of people regard it as a sin to have a doctor at all.

Another example of the type of thinking: An old estimate of the value of human life arrived at by some sort of statistical analysis is set up as an actual value of human life in the United States. These values are placed in round numbers. According to figures each human is worth $10,000 and the entire human poulation in the United States is worth $1,500,000,000,000.00. The human population includes criminals, the insane decrepids, in fact, all the people who are a burden to society and not an economic asset at all. No one can dispute this valuation, even though it is many times the value of all other assets combined (placed by experts as $329,000,000,000). I would not dispute the value of it were it three times the amount stated, because from a personal standpoint there are human values that I rate above all of it, even though their economic worth to me is nothing at all. So to use such arbitrary values as a basis for justifying expenditures is utterly ridiculous.

We lose sight of the fact that people have sacrificed lives which they themselves would value highly to obtain the thing we call liberty, the value or price of which no one can fix.

Another example is that one week per year is lost from work on account of illness and the value of this time is set up as a loss to humanity. The fact that there are seven millions of unemployed people ready to take the jobs of those who are disabled is lost sight of. The disability of one will be the good fortune of another, so the public as a whole does not suffer a loss at all. One individual loses, another individual gains and the work is done.

All such statistical analyses disregard the most vital and fundamental facts pertaining to human nature, namely, the psychology of humans. The human has ambitions, hopes, desires, prejudices, likes and dislikes, etc., which other animals do not possess. No one can place a value on each of these attributes, still these very attributes make human values.

The man with a passion for drink is not governed by a statistical analysis dealing with the harmful influence of drink. If the passion follows other lines, figures do not have material influence. If one throws emotions and sentiments to the winds there are many things that have a value which would cease to have a value, so such valuations are nonsense to start with.

In this report a direct criticism of the medical profession is skillfully avoided, though it is insisted that the machinery by which medical service is delivered is not what it ought to be.

We don't suppose that anybody would insist that our facilities for medical service are just what they might be, nor can it be insisted that any other human organization in existence is perfect. It can be successfully maintained that in the last fifty years the system of medical service has given a good account of itself. Human misery has been diminished. Human life has been prolonged and some diseases have almost disappeared. All these things have happened under the very faulty system now in vogue, and even before vast sums of money were appropriated for investigations, endowments, etc.

The general public may read these reports and be misguided by them into attempting to bring about radical changes in our whole system of government, medical service included.

We must bear in mind that there are people of intelligence now living who insist that religion is all wrong. Others insist that our entire governmental system is wrong and most of these critics are willing to set themselves up as authorities, or dictators, provided they are well financed while engaged in the activity.

In the Constitution of the United States emphasis was placed on the "pursuit of happiness" by the individual. A government was set up for the purpose of guaranteeing to the individual the high privilege of pursuing happiness in his own way. The pursuit of happiness has no economic value that one can define, though it is a mighty driving force. One man cannot define for another what happiness is, though there are those who would define it and then put all others in the pursuit of the thing they have so defined. This, of course, cannot be done, but an awful tragedy can be brought about in an attempt to do it.

Bad thinking is a dangerous thing to follow, no difference who does it.

J. Tennessee State Med. Assn., Feb., 1932.

INDIVIDUALIZATION

One of our first duties of our medical students is to impress on them by word and by example the importance of the individuality of each patient; to show them that since no two individuals are alike, no two cases of the same disease can be just alike; and so none should receive standardized treatment. Human beings cannot be treated like homogenous steel and wood. Good medicine and good surgery demand the careful study of the individual patient's physical, psychic and social problems. To perform exactly the same operation on two cases of appendicitis, to prescribe exactly the same medicine to two patients with pneumonia, means that one, and probably both, of the patients is not getting the best of care. Exactly similar suits of clothes will not fit well two different men, and the better the tailor the more alterations will be made until each suit does fit one man exactly. So a good therapeutist will not write exactly the same prescription for any two patients. He will find differences between them which influence his treatments. Fine organization with a view to mass production may succeed in the business world, but good medicine demands individual attention; retail business; bench work. To teach this to our students is our duty. It is a hard task, for by so doing we are going contrary to the ideals of the business world of today.—*Charles P. Emerson, M.D., in "Problems in Medical Education."*

MEDICAL BOOK NEWS

Edited by WILLIAM HENRY DONNELLY, M.D.

All books for review and communications concerning Book News should be addressed to the Editor of this department at 1313 Bedford Avenue, Brooklyn, New York.

JUNE, 1932

REVIEWS

Surgery of the Chest

SURGERY OF THE CHEST. By George F. Straub, M. D., F.A.C.S. Springfield, Charles C. Thomas, 1932. 475 pages, illustrated. 8vo. Cloth, $10.50.

In this book Dr. Straub has given us on the whole a rather well balanced comprehensive presentation of surgery of the chest with all its most modern indications and refinements in technique. That this is a rapidly increasing fertile field of exploration has been pretty fully grasped by the profession, and so any book dealing with so interesting a subject must of necessity compel our unflagging interest.

We wish we could say that this book were of unfailing uniform merit, but unfortunately there are weaknesses cropping out in the various chapters which could and probably will be remedied in future editions, for the book as a whole is too good to disregard despite these weaknesses. The basic weakness of the book lies chiefly in its failure adequately to present a sufficient depth and breadth of discussion of the pathological and physiological reasons for this field of surgery; especially, is this notable in the chapters on lung abscess and bronchiectasis where the present day wealth of bacteriological study has scarcely been touched upon. Also the chapters on General Diagnosis, The Role of X-ray in Thoracic Surgery, and Spontaneous and Artificial Pneumothorax are a trifle too superficially treated.

The book abounds in excellent illustrations, many of them the handiwork of the author himself. The chapters on thoracoplasty are excellent. Despite the objections enumerated, your reviewer considers this a most excellent contribution and looks with confidence for a better and more evenly balanced edition in the near future.

FOSTER MURRAY.

Fundamentals of Orthopaedic Surgery

FUNDAMENTALS OF ORTHOPAEDIC SURGERY IN GENERAL MEDICINE AND SURGERY. By Robert B. Osgood, M.D., F.A.C.S. and Nathaniel Allison, M.D., F.A.C.S. New York, Macmillan Company, 1931. 311 pages. 8vo. Cloth, $3.00. (Harvey Lectures.)

This book is a syllabus of orthopedic surgery for Harvard Medical Students. The character of the authors makes it authoritative and there is little to discuss in the book itself. As a method of teaching a specialty it is illuminating at a time when in our medical schools we are told there is no room or time to properly teach them. On the other hand our training schools for nurses require much in the teaching of specialties and seem to find the time. The method of teaching at Harvard is through this book. The student prepares an allotted lesson. The teacher demonstrates the subject by specimens, lantern slides and patients. The students then question the teacher freely. This is all followed by a quiz and marks given. To accomplish this the hour is divided into three equal periods. The background of this plan is to avoid the didactic lecture that is so largely discredited in modern thought. This is all very interesting. However with a proper teacher the lecture is a powerful measure in teaching. Personally the reviewer shall never forget Dr. William F. Campbell's description of the arch of the aorta—it is vivid with him today. It may be that the trouble is not so much with the method as with those who try to use it. Teachers are born not made.

JAQUES C. RUSHMORE.

Cancer

CANCER: What Everyone Should Know About It. By James A. Tobey, Dr. P. H., New York, Alfred A. Knopf, 1932. 313 pages, illustrated, 8vo. Cloth, $3.00.

The object of this book is to disseminate practical knowledge about cancer to the public.

The author is to be congratulated on his clear presentation of the nature of cancer, and the types and locations of cancer. He emphasizes the early symptoms and signs that should lead an individual to seek medical advise.

He reviews the every day misconceptions of the nature of cancer, stressing the fact that it is neither hereditary nor contagious. He discusses the popular false cancer cures and warns the public against fads and cults.

The chapters on how to choose the right sort of doctor, and on the newer methods of treatment will serve toward early diagnosis and cure.

HARRY MANDELBAUM.

Biochemistry in Internal Medicine

BIOCHEMISTRY IN INTERNAL MEDICINE. By Max Trumper, Ph.D. & Abraham Cantarow, M.D. Philadelphia, W. B. Saunders Company, 1932. 454 pages, illustrated. 8vo. Cloth, $5.50.

One who is actively engaged in Clinical Pathology often wishes to find a text book which discusses from a practical point of view the theories and principles of the various laboratory tests employed. This is especially true with practitioners. This volume fulfills just such a requirement. Technic is almost entirely eliminated, since most of the tests are not performed by the physician seeking the information which these tests yield. The Doctor wants the gap bridged between clinical medicine and laboratory bio-chemistry and physiology. This is accomplished in a style characterized by easy reading and clear interpretation of the clinical value of the various laboratory tests employed. The book is up-to-date.

SILIK H. POLAYES.

Mental Healers

MENTAL HEALERS. Franz Anton Mesmer, Mary Baker Eddy, Sigmund Freud. By Stefan Zweig. Translated by Eden and Cedar Paul. New York, The Viking Press, 1932. 363 pages. 8vo. Cloth, $3.50.

The author presents three mental healers—Mesmer, Eddy and Freud, each of whom has brought help to thousands of beings. All three are of intense psychological interest as personalities and have contributed to the development of psychology in its present scientific form.

Mesmer lived during the 18th century. Having heard from a friend of the cure of a patient through the use of a magnet applied externally to the body he developed this idea in his own practice. He soon realized that it was not the magnet that produced results for by touching the patient with his own hand similar cures resulted. From this he developed his concept of "animal magnetism", namely that magnetic currents transferred from healer to patient produced a cure. Today, we realize in this idea the doctrine of suggestion and development of the "will-to-health". The author holds Mesmer in high regard, concluding that it was his misfortune to be born before his time.

For Mary Baker Eddy the founder of "Christian Science" there is reserved a different picture. She coupled the religious and therapeutic idea of a belief in the divinity of man and the goodness of God. Since God is good there must necessarily be no evil and such associations as death, illness and pain are figments of the imagination. Zweig refers to Mary Baker Eddy as, "unattractive by no means beautiful, not particularly sincere, rather stupid...nothing in her mediocre brain but one solitary idea". In spite of all this she has definitely found a place amongst the pioneers of psychology.

The last of the mental healers is Sigmund Freud, who is still alive. He has revealed to us the conflicts occurring continually in the realm of the unconscious, the technique of psychoanalysis, the importance of sexual factors in the development of the young,

the interpretation of dreams, all aiming at the liberation of the individual.

There is a unit throughout the book, as it traces the development of mental healing from the time of Mesmer when the patient was merely the recipient of suggested psychotherapy through contact with the doctor's hands to Eddy, who eliminated touching the patient and encouraged training of the mind to deny the existence of pain and illness through faith and so finally to Freud who freed the mind so as to enable it to believe what was going on within it so that the patient could help himself to get well.

This book is well worth reading. Throughout its course one feels that all this striving for mental health has as its ultimate goal the exalting of the individual so that he may develop free of bodily and mental illness.

STANLEY S. LAMM.

Diseases of the Musical Profession

DISEASES OF THE MUSICAL PROFESSION. A Systematic Presentation of Their Causes, Symptoms and Methods of Treatment. By Kurt Singer, M.D. Translated from the German by Wladimir Lakond. New York, Greenberg: Publisher, [c. 1932]. 253 pages. 8vo. Cloth, $3.00.

That musicians may be afflicted with diseases peculiar to their professions should be especially interesting to us who think in terms of individuals rather than of groups. Dr. Kurt Singer, the author, is a prominent neurologist as well as a recognized musical critic.

He sympathizes with the difficulties which a musician must overcome in order to achieve fame. The physician, he holds, can achieve prominence in a number of ways that may not necessarily be due to his own efforts. Not so with the musician who must be entirely self-reliant and original. Hence, we find a plausible basis for such erratic traits as self-admiration and emotional upsets. And after the musician has already become famous "he senses stagnation, reaction and progress more intensely than people in other professions". Dr. Singer psychoanalyzes the musician in a matter-of-fact way based on an extensive professional experience.

There are facts in every page that should interest us. We are told that "deaf masters compose without the control and supervision of the special hearing apparatus" and that the "eye is the supreme means of aid for enjoying music". While this work is admirable in every respect there is but one phase of it to which the reviewer would take exception, namely, the title. The disorders which occupy Dr. Singer's attention are essentially functional and on that account could hardly be classified as "diseases".

The practitioner may well keep this book in mind for the lucid advice the author offers in understanding the musician, and he may well recommend it to the musician in helping him to understand himself. Dr. Singer has ably proved himself a worthy medical ambassador to the musical profession.

EMANUEL KRIMSKY.

Obstetric Education

OBSTETRIC EDUCATION. Report of the Subcommittee on Obstetric Teaching and Education. Fred Lyman Adair, M.D., Chairman. White House Conference on Child Health and Protection. New York, The Century Company, [c. 1932]. 302 pages. 8vo. Cloth, $3.00.

This report of the White House Conference on Child Health and Protection is a broad and fairly comprehensive survey of the status of obstetric teaching. Its conclusions are sound and of particular value to those who teach gynecology and obstetrics.

The field of undergraduate and graduate instruction is well covered, and the obstetric education of nurses, midwives, the laity and social workers is discussed. Space does not permit detail of the recommendations of the Committee, but it is important to note that unsupervised home deliveries by students is an indefensible practice, and that the departments of obstetrics and gynecology should be unified in all medical schools, and in all hospitals affiliated with, and controlled by them. In graduate teaching too it is held that "Obstetrics and gynecology are fundamentally one and indivisible." It is interesting too that eight medical schools prepare men to hold professorships. There is a table showing how they do it, but critical study of the results of such a formal method has not been carried out.

The book is a fine contribution in our efforts to lower maternal mortality, and the work of the subcommittee is a credit to Dr. Adair. It should be widely read.

CHARLES A. GORDON.

Principles and Practices of Public Health Nursing

PRINCIPLES AND PRACTICES IN PUBLIC HEALTH NURSING INCLUDING COST ANALYSIS. Prepared by The National Organization for Public Health Nursing. New York, The Macmillan Company, 1932. 129 pages. 8vo. Cloth, $1.75.

The Principles and Practices of Public Health Nursing including Cost Analysis recently published by the National Organization for Public Health Nursing is in substance exactly what the title implies—a handbook for executives and supervisors. It makes no pretence of being all inclusive of the subject of public health nursing for it makes frequent reference to the Board Members Manual and the Manual of Public Health Nursing.

A great deal of the material in the Principles and Practices of Public Health Nursing is not new to those for whom it is written. The value of the book is that it is suggestive, in as much as it presents a picture of the acceptable practices of organizations all over the country. From it one may take one's choice of the method that seems best adapted to special needs, with the assurance that the standards described are of the highest.

The section on computing the cost of a visit is especially valuable as it elucidates a most difficult problem of administration.

Public Health Nursing organizations everywhere will welcome this book as embodying the best of present thought and practice. They will realize that the book is an important stepping stone to a better quality of service.

HARMINA STOKES.

Uninvited Guests

UNINVITED GUESTS. A Short Account of the Animals Living on or in Us. By David Causey, Ph.D. New York, Alfred A. Knopf, 1932. 120 pages, illustrated. 12mo. Cloth, $2.00.

This LITTLE book deserves a BIG review. Beginning with the title to the last page, the introduction to the various parasites is so cleverly performed that even the most serious-minded reader is subjected to facial cramps from constant smiling that needs must accompany the reading. One who possesses a more profound sense of humor is guaranteed even more—frequent outbursts of hearty laughter. The reviewer recommends that the reader, like the author, when he wrote the book, seat himself comfortably with pipe and book before commencing to read the refreshing description of the parasites to whom man gives free board and lodging. Before the first ten pages have been read, the reader will have been informed how old maids determine the strength of the British Navy, why Hamlet's mental processes may be compared to a woman driving a car, and why ants never get Rickets. The reviewer cannot elucidate here upon the relationship of the above to parasitology. One must read the book to appreciate it.

The author is very modern and vivid in his descriptions. Thus, he compares the crowded condition in our modern subways during rush hours, with the turmoil of the protozoa in the termites intestines; parasitism with our dreaded underworld; pseudoparasites with our Department of the Interior; and modern medicinal fads, such as the administration of cod liver oil to protozoa. The author is frequently very subtle in his deductions and likes to reiterate truths which hurt. For example: he makes certain to impress the reader with the close relationship (parasitological, and perhaps implying otherwise) between man and pig. The reviewer wishes to add that perhaps from the parasites point of view, the author flatters man, but since parasitology knows no modesty, he is excused.

No review can do justice to this little joke book on parasitology. It is worth its price in laughs, besides the valuable information which it contains on the uninvited guests—the PARASITE.

SILIK H. POLAYES.

Handbook of Medicine

WHEELER AND JACK'S HANDBOOK OF MEDICINE. Revised by John Henderson, M.D., F.R.F.P.S. Ninth edition. New York, William Wood & Company, 1932. 654 pages, illustrated. 12mo. Cloth, $4.00.

Ninth Edition, New York, William Wood & Co. 1932. In this edition of this useful small book the sections on Vitamins, Pernicious Anemia, Arthritis Deformans, and Encephalitis Lethargica have been rewritten. A number of new sections have been added as Coronary Thrombosis, Bundle branch block, Syphilis of the Stomach, and various types of Neurosis. The section dealing with Neurology is one of the best. For the preparation for examination or for quick reference, it is an excellent book.

W. E. MCCOLLOM.

The Wisdom of the Body

THE WISDOM OF THE BODY. By Walter B. Cannon, M.D., Sc.D. New York, W. W. Norton & Company, Inc. [c. 1932]. 312 pages, illustrated. 8vo. Cloth, $3.50.

It is with the greatest of pleasure that we reviewed this important contribution by Dr. Cannon. This is a volume of approximately 300 pages, well illustrated and fascinatingly written. To the medical profession this contribution is of inestimable value.

The publishers have taken considerable pains to put out a very attractive volume. The references follow the chapters and there

is a bibliography of publications from Dr. Cannon's laboratory. The index is brief but effective.

While non-technical in language, the volume is pregnant with the facts and relationship of those biologic processes which maintain body structure and action. Amongst the subjects considered are those processes which are most important in maintaining our complex body functions.

How does thirst and hunger act to assure body supplies? How is the water and salt content of blood and tissues maintained? What factors regulate and maintain (homeostasis) blood sugar, protein, fat, calcium, oxygen? How does the sympathico adrenal system act to maintain stability of the endocrine glands? How do they function?

The volume written by our foremost physiologist is a real contribution to the medical profession.

HENRY M. FEINBLATT.

Exercise and Its Physiology

EXERCISE AND ITS PHYSIOLOGY. By Adrian Gordon Gould, Ph.B., M.D. and Joseph A. Dye, A.B., Ph.D. New York, A. S. Barnes and Company, Inc., 1932. 434 pages, illustrated, 8vo. Cloth, $3.00.

Here is a most inclusive study of the physiology of exercise presented in a clear and interesting manner. Every phase of muscular activity and its mechanism and result is completely covered. The metabolic studies described are most thorough and accurate. Complete reference tables are given, which even further increase the value and authoritative aspect of the work. Many obscure phenomena frequently observed in connection with physical activity are most satisfactorily explained by the authors on a physiological basis. The book is well written and clearly printed and illustrated, and can be highly recommended to the student and practitioner.

JEROME WEISS.

A Doctor of the 1870's and 80's

A DOCTOR OF THE 1870's AND 80's. By William Allen Pusey. Springfield, Charles C. Thomas, 1932. 153 pages, illustrated. 8vo. Cloth, $3.00.

This is a brochure of 153 pages and many illustrations, taken by the Author with his own Kodak when kodaks first made their advent, in which he describes the life and rural environment of his father, Dr. R. B. Pusey. It is a delightful portrayal of a real country Doctor, by his son,—a one-time President of The American Medical Association and Author of a standard work on Dermatology,—who lived and served during the first two decades after the curtain had lifted on modern medicine. Rudolph Virchow had written his "Cellular Pathology" and the bacteria were beginning to be talked about. The frontispiece, a portrait of the elder Pusey reveals the character of the man: a kindly, intelligent face, shrewd in judgment and mentally active. The book is a most entertaining and interesting expression of the affection and veneration of a son for his Father and its context is full of an atmosphere which leads one to ask whether, after all, the life of a successful country practitioner is not very much to be envied.

J. M. VAN COTT.

THE PRACTICAL MEDICINE SERIES, 1931

THE PRACTICAL MEDICINE SERIES. Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. Series, 1931. Chicago, The Year Book Publishers, 1931-1932.

General Medicine

GENERAL MEDICINE. Infectious Diseases. By George H. Weaver, M.D. with the collaboration of T. T. Crooks, M.D. Diseases of the Chest (Excepting the Heart). By Lawrason Brown, M.D. Diseases of the Blood and Blood Making Organs: Diseases of the Kidney. By George R. Minot, M.D., D.S. and William B. Castle, M.D. Diseases of the Heart and Blood Vessels, by William D. Stroud, M.D. Diseases of the Digestive System and Metabolism. By Ralph C. Brown, M.D. 814 pages, illustrated 12mo Cloth, $3.00.

The editors of this volume have carefully studied the literature on General Medicine for the year 1931 and have presented the new information of value. The present knowledge of disease transmitted by the lower animals, as undulant fever, tularemia and psittacosis, has been discussed. The value of vaccines and sera are presented as used in the acute diseases of the nervous system. Advances in knowledge of diseases in the different systems are presented. So much is included in this compact volume of eight hundred pages that it is impossible to comment in detail. This volume is a valuable one and will be most useful and instructive to one who wishes to remain abreast of medicine in its rapid advancement.

HENRY M. MOSES.

General Surgery

GENERAL SURGERY. Edited by Evarts A. Graham, A.B., M.D., 804 pages, illustrated. 12mo. Cloth, $3.00.

This is the 1931 volume containing, as usual, abstracts of the more important articles on practically all surgical topics.

Of particular interest are the articles on shock, thyroid and parathyroid, to which Doctors Crile, Dunhill and others have contributed.

F. R. Berry has an interesting abstract on the unfavorable results of phrenicectomy.

This volume is well up to the usual standard and should be an asset to all practicing surgeons.

HERBERT T. WIKLE.

Eye, Ear, Nose and Throat

EYE, EAR, NOSE AND THROAT, THE EYE. By E. V. L. Brown, M.D. and Louis Bothman, M.D. The Ear, Nose and Throat. By George E. Shambaugh, M.D. and Elmer W. Hagens, M.D. 629 pages, illustrated. 12mo. Cloth, $2.50.

While the field of otolaryngology is essentially a surgical one, we have learned to look upon reports on surgical technic as constituting the major issue in this specialty. It is quite astonishing, therefore, that this issue has almost completely ignored surgery per se, but has attempted to critically evalute its results which for many years have been a blind issue. That there is evidence of a sudden and reactionary conservatism seems to attest to a dearth of operative successes and, fortunately, even though delayed, reflects a saner outlook towards diseases of the head and neck. Just to mention a few of the changes:

1. One of the established principles drilled into physicians and students is that in cases of retrobulbar neuritis we should look for foci of infection, especially of the sinuses. We now read that "sinusitis is a rare cause of that disease and operations are useless and often dangerous".

2. X-Ray therapy for pituitary tumors is enthusiastically recommended as "the most reliable form of treatment at present".

3. There is some wholesome advice on the treatment of deafness, or rather on the avoidance of useless tamperings of anatomical structures. "The deafened patient submits to submucous resection, turbinectomy, and tonsillectomy", but without any beneficial results whatsoever.

4. That the tonsil operation is no longer a panacea against infection seems to be drawing more and more in the last year or two.

5. Fifteen cases of non-luetic Argyll Robertson pupil are reported for the benefit of those who make an absolute diagnosis on this finding.

6. That glaucosan may postpone the need for operation in glaucoma for months is again reported in this series.

7. One writer has collected a large series of perforating injuries of the eye ball and finds that complicating sympathetic ophthalmia occured in comparatively few instances.

The general practitioner might do well to read this issue so as to confidently realize that ailments involving the head do not necessarily demand surgery as in the past, but the combined responsibility of himself and his consultant to do a smuch as possible to offset surgery.

EMANUEL KRIMSKY.

Obstetrics and Gynecology

OBSTETRICS. Edited by Joseph B. DeLee, A.M., M.D. GYNECOLOGY. Edited by J. P. Greenhill, B. S., M.D. 665 pages, illustrated. 12mo. Cloth, $2.50.

No volume devoted to the year's progress in medicine and surgery is of more value to the Obstetrician, Gynecologist, Surgeon and General Practitioner than this one compiled by DeLee and Greenhill on obstetrics and gynecology. Certainly it contains a wealth of information in a digestible form.

The articles abstracted cover every conceivable aspect of obstetrics and gynecology. The Editor's comments at the termination of many of the abstracts are pithy, terse, often amusing but always instructive. The material comes from all parts of the world, therefore the subjects presented should give the reader a pretty broad and thorough knowledge of what is going on in this branch of medicine.

This small book should be in the working library of every physician who has anything to do, no matter how little, with obstetrics and gynecology. It will serve him well and be of great help in the more intelligent management of his obstetrical and gynecological patients. HARVEY B. MATTHEWS.

Pediatrics

PEDIATRICS. Edited by Isaac A. Abt, M.D. With the Collaboration of Arthur F. Abt, M.D. 569 pages, illustrated. 12mo. Cloth, $2.25.

The author has again furnished us with a digest of all that is good in the pediatric literature during the year following the last edition of the series. It should become the part of every physician's library. The introduction is timeworthy, giving the aims of the newly formed body, the American Academy of Pediatrics.

There are very timely abstracts in Infectious Diseases, rheumatism, and the ductless glands.

If you have not already started this series, do so and keep abreast of the times in pediatrics.

THURMAN B. GIVAN.

General Therapeutics

GENERAL THERAPEUTICS. By Bernard Fantus, M.S., M.D. and Louis B. Kartoon, B.S., M.D. 467 pages, illustrated. 12mo. Cloth, $2.25.

As usual, this book of a very good series, furnishes an excellent review of the leading articles of the year dealing with therapeutic procedures. The preface states that endocrinology offers the most spectacular developments. The use of the harmone of the adrenal cortex in Addison's disease, the pituitary treatment of baldness, if it proves to be efficient, and the excess of the anterior pituitary harmone in the urine in pregnant women, used in the Ascheim-Zondek test to produce corpora hemorrhagica when injected into non-pregnant rabbits, are examples. Diphtheria toxoid is stated to have become the agent of choice in immunization in that disease. There are many other topics of interest, well treated.

W. E. MCCOLLOM.

Dermatology and Urology

DERMATOLOGY AND SYPHILIS. Edited by Fred Wise, M.D. and Marion B. Sulzberger, M.D. UROLOGY. Edited by John H. Cunningham, M.D. 472 pages, illustrated. 12mo Cloth, $2.25.

The dermatological division of this book has been prepared by its new authors, and is a tribute to their painstaking care in abstracting the current literature. One finds here much more detailed abstracts of the articles considered than has been found in previous editions of the Year Book, but this, of course, has the disadvantage of displacing even short abstracts of many other worthy articles that have appeared in the literature during the year.

Slightly more than one half of the articles considered are from the German literature, which has its advantages for those who are unable to read in that language, however, it is to be regretted that there were not more American authors to find their place in the sun. Let it be said in justice to the authors, that in their foreword they explain this fact by stating that they chose for their consideration particularly, the literature that was less readily available to the regular reader.

The section on Urology continues to be written by the same author as in the past, and in his summary of the literature he has continued the usual careful and thoughtful study that has characterized his work of former years.

E. ALMORE GAUVAIN.

Neurology and Psychiatry

NEUROLOGY. Edited by Peter Bassoe, M.D. PSYCHIATRY. Edited by Franklin G. Ebaugh, A.B., M.D. 471 pages, illustrated. 12mo. Cloth, $2.25.

The Neurological and Psychiatric literature has become most voluminous due both to the rapid development within the neurological and psychiatric field and the increasing number of active workers in these specialties. While neurology and psychiatry cannot be studied apart, after the fundamentals of both have been mastered, a person may confine himself to one branch. In this year's volume the literature on psychiatry has been reviewed by Dr. Ebaugh, who is an acknowledged leader in the field. Dr. Bassoe has reviewed the neurological literature. The authors have used great discretion and excellent judgment in selecting the best articles published during this year. The book as a whole is a valuable collection of data in a very accessible form, and covers the neuropsychiatric literature in a comprehensive manner. This book is indispensable for every practitioner in medicine, and more so to the neurologist and psychiatrist.

IRVING J. SANDS.

BOOKS RECEIVED

Books received for review are acknowledged promptly in this Column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

THE YOUNGEST OF THE FAMILY. His Care and Training. By Joseph Garland, M.D. Cambridge, Harvard University Press, 1932. 196 pages, illustrated. 8vo. Cloth, $2.00.

DISEASES OF THE CORONARY ARTERIES. (Myocarditis). By Don C. Sutton, M. S., D. C. and Harold Lueth, Ph. D., M. D. St. Louis, The C. V. Mosby Company, 1932. 164 pages, illustrated, 4to. Cloth, $5.00.

PAPERS ON SURGERY AND OTHER SUBJECTS. By George Tully Vaughan, M. D., LL. D. Washington, W. F. Roberts Company, 1932. 408 pages, illustrated. 8vo.

CONTRIBUTO ALLA STORIA DELLA SCABBIA. By Dr. Ugo Faucci. Siena, S. Bernardino, 1932. 170 pages. 8vo.

THE STORY OF LIVING THINGS. A Short Account of the Evolution of the Biological Sciences. By Charles Singer. New York, Harper & Brothers, 1931. 572 pages, illustrated. 8vo. Cloth, $5.00.

THE MODERN CONCEPTION OF DEAFNESS. By Harold Hays, M.D. St. Louis, The Laryngoscope, 1932. 149 pages. 12mo.

GLEANINGS OF LOW VOLTAGE TECHNIQUE. By George A. Remington, Ph. G., M.D. [Chicago]. Privately Published, 1932. (On sale by the McIntosh Electrical Corporation, Chicago). 122 pages, illustrated. 8 vo. Paper, $1.00.

MAN AND MEDICINE. An Introduction to Medical Knowledge. By Dr. Henry E. Sigerist. New York, W. W. Norton & Company, Inc., [c. 1932]. 340 pages. 8vo. Cloth, $4.00.

THE LAME, THE HALT, AND THE BLIND. The Vital Role of Medicine in the History of Civilization. By Howard W. Haggard, M.D. New York and London, Harper & Brothers, 1932. 420 pages, illustrated. 8vo. Cloth, $4.00.

CALIFORNIA'S MEDICAL STORY. A Fascinating and Thrilling Medical History. By Henry Harris, M.D. San Francisco, J. W. Stacey, Inc. 1932. 421 pages, illustrated. 8vo. Cloth binding. Regular edition $7.